

NAVY MEDICINE

WINTER ISSUE

Official Magazine of U.S. Navy and Marine Corps Medicine



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Official Magazine of U.S. Navy and
Marine Corps Medicine

Vol. 105 • No.2 WINTER ISSUE

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NAVY MEDICINE is the professional magazine of the Navy Medical Department community. Its purpose is to educate its readers on Navy Medicine missions and programs. This magazine will also draw upon the medical department's rich historical legacy to instill a sense of pride and professionalism among the Navy Medical Department community and to enhance reader awareness of the increasing relevance of Navy Medicine in and for our nation's defense.

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All articles must be present tense/active voice.

Photos must be minimum 300 dpi.

Photos showing action are preferred.

All photos must be accompanied by a caption and photo credit.

Subjects considered:

Scuttlebutt: Stories about activities at MTFs and the field.

Photo Album: Action shots from across Navy Medicine.

Feature Articles: Stories featuring interesting contributions of Navy

Medicine to military operations including everything from combat

support to Humanitarian Relief/Disaster Response will be considered.

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IT, QA: Any articles showing how Navy Medicine is utilizing the electronic age.

Shipmates: Anything interesting about our shipmates working in the healthcare field in the Department of the Navy.

All submissions must be accompanied by complete contact information for author. In the event there is more than one author please assign one author to be primary correspondent.

Feedback Welcome

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On the Cover

Sailors move a simulated casualty during a mass casualty drill in the hangar bay of the aircraft carrier USS George H.W. Bush (CVN 77). George H.W. Bush was conducting sea trials in collaboration with Norfolk Naval Shipyard to train Sailors and ensure operability of equipment and systems following the successful completion of a four-month planned incremental availability period. (Photo by Mass Communication Specialist 2nd Class Timothy Walter)

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THE IMPORTANCE OF READINESS

As we start upon this new year and look at our mission ahead, we need to be ready. Whether our job is providing patient care at a medical treatment facility or providing training to Sailors and Marines, we need to keep readiness at the forefront. We are in the readiness business.

This month, I would like to focus on the importance of readiness from the battlefield to the bedside. Readiness is job number one. Each job that we do has an impact on readiness.

When people ask me about Navy Medicine I tell them what we do. We provide world-class care, anytime, anywhere, above the sea, on the sea, or below the sea. And when we need to, we move on to land and complete our mission there. It's our hallmark, it's our ethos, and we are the pride of the country for the way we meet that mission.

We need to stay in the readiness business to stay sharp, operate forward, and be ready. And so I expect you to be on point, and to do what's necessary to maintain that readiness. In order to meet our readiness goal we must make sure we take care of ourselves, take care of the ship or the mission, and take care of our shipmates. I am sure you have heard me reiterate the importance of ship, shipmate, and self if you have worked with me throughout the years.

We can meet our readiness goal through a variety of ways. First, we need the right education and training. The Medical Education Training Campus in Fort Sam Houston, Texas is a great example of that. All of our corpsmen go through METC to get the right training they need to complete their mission in whatever operating environment they are assigned to – whether it is on the battlefield in Afghanistan or providing care during a community outreach program in San Diego. The right training will ensure that we are ready to meet our operational commitments.

In January, I visited the U.S. Naval Medical Research Unit No. 6 (NAMRU-6) in Peru. The incredible research being done there is another fine example directly supporting the readiness of our Fleet and force. The infectious disease research and surveillance they are conducting in South America enhances the health and readiness, not only of our Navy and Marine Corps personnel, but also that of our joint partners.

The outstanding work by our other Navy Medicine NAMRUs and Naval Environmental Preventive Units around the world also play a significant role in maintaining readiness not only for our Navy Medical personnel directly working in those areas but for the entire Navy Medicine enterprise with extensive vaccine research and disease surveillance.

Next, we need the right equipment to meet our readiness goal, including technology and clinical informatics. If we have the right equipment and the ability to access electronic patient medical records, we are more effective in providing world-class patient care.

Finally, we need the right resources to keep us ready. Whether they are resources for our wounded warriors, families, independent duty corpsmen or directives and policies that help our personnel at MTFs and in the field, we need up to date and valuable resources to keep us ready to meet our mission.

Recently, there has been a disturb-



ing trend on the use of synthetic drugs such as spice and bath salts, eroding the readiness of our Sailors and Marines. Using these designer drugs is like playing Russian roulette with not only your life but also your career and health. Let me remind you that there is a zero tolerance policy on illegal drug use in the U.S. Navy and it's not worth losing your career, family, or sanity. We need all of our personnel to remain strong and healthy to meet our mission.

Readiness also plays a major role in supporting our 21st century Sailor and Marine – one that will be ready both mentally, physically, spiritually, emotionally, and professionally to meet the challenges of today. It's what also allows me to boast about you anywhere I go, about the job you do and how you do it and the challenges you meet head on.

I am extremely proud to be your shipmate. It is my honor and my privilege to be your surgeon general.

--Vice Adm. Matthew L. Nathan

Collaboration and Joint Partnerships

The current national and global environment challenges military medicine in many ways that are different from past. These challenges present as threats and opportunities ranging from regular and irregular global warfare, humanitarian aid, rebuilding in crisis zones, cooperative engagements, and collaboration of not only the other services but of other government agencies.

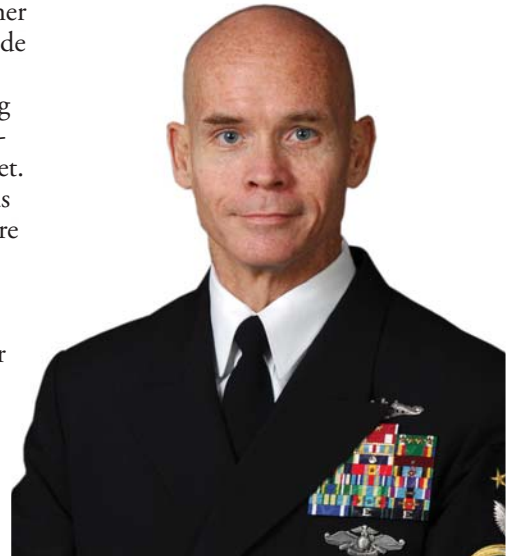
While it is not possible to predict how or what challenges will emerge and the forms they may take; it is vital to Navy Medicine's strategic and operational future to capitalize on the joint training and operational environments. This visionary thinking requires keen insight of current situations in order to predict, prepare, and execute future change. This does not mean everything will change; in fact, the challenges of the future will resemble, in many ways, the challenges that military medicine has faced over the past century. It is important to understand that we do not always need to reinvent the wheel, just realign it.

Our Navy and specifically Navy Medicine, has faced each challenge head-on and will continue to do so during the next century. As we have in the

past, we will continue to work together as one cohesive team, rising on the tide of one common set of goals that will ensure our Navy tenants, Warfighting First, Operating Forward, and Readiness, are efficiently and effectively met. This will require an unrelenting focus from the smallest of units to the entire Navy Medicine enterprise.

As our Nation looks towards increased efficiency, we all need to do our part to ensure we are working for the common interest of the Nation. Within Navy Medicine, we are leading the way to bridge the gaps in those common areas, providing an efficient and better service to our warfighters. What we have learned and continue learning from our tri-service joint collaborations is that our differences are not so far apart, and the differences we have embraced have allowed us to capitalize on the bigger picture of preventing injury, saving lives and ensuring continuity of care for our wounded warriors.

In the past, Navy Medicine joint operations have provided efficient and effective care and stewardship, which has now become the vanguard of our future joint ventures. We recently celebrated the one-year anniversary of Walter Reed National Military Medical Center, where the icons of Navy and



Army Medicine integrated into the Nation's largest and most complex military medical treatment facility, directly in the heart of our National Capital Area. Great Lakes, Ill. is seeing vast improvements in care and treatment since the merger of the Department of Veterans Affairs medical center and the Naval hospital. Without a question, the Navy has trained the finest enlisted medical community in the world, and by consolidating our training in San Antonio, we have only continued to capitalize and improve on our health care education.

These are examples of not only the future of military medicine, but also the exciting future of our entire military. These efforts only work when driven from the deckplates upward.

Shipmates, I need each of you to do your part and continue to uphold the proud traditions of our Naval Service, but do not fail to capitalize on efficiency through collaboration and joint partnerships. Our Sailors, trained in San Antonio, only know this way and leaders must take advantage of their strengths and benefit from their diversity. Remember the future of our tomorrows is a reflection of our collaboration and performance today.

*-- Force Master Chief
Sherman E. Boss*

**Our Navy and specifically
Navy Medicine, has faced
each challenge head-on and
will continue to do so
during the next century.**



EMERGENCY



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BAT

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Bath salts are a non-regulated designer drug comprised of a synthetic cathinone, or amphetamine, that can have dangerous and debilitating effects on those who use them.

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BATH SALTS

AD... IT'S A NIGHTMARE

Woodson Visits Pacific Region

By Christy Crimmins | Military Health System



A three-year-old Vietnamese girl high-fives Hospitalman Hector Hernandez during physical therapy aboard the hospital ship USNS Mercy (T-AH 19). She is receiving scar reduction treatment during Pacific Partnership 2012 to improve her appearance, mobility and dexterity of limbs. (Photo by Kristopher Radder)

In June 2012, Defense Secretary Leon Panetta announced that U.S. Defense Strategy would seek to build a deeper and more enduring partnership role in advancing the security and prosperity of the Asia-Pacific Region.

In the coming years, the U.S. will play a larger role in the geographically dispersed region, strengthening its military presence, training allies and providing humanitarian assistance where needed. From a military medical perspective, this shift means continuing to provide excellent care and medical services to service members and beneficiaries, while sustaining military medical humanitarian assistance capabilities and seeking opportunities for integration and technological advancement across the region.

"It's about understanding how we need to reorganize and integrate across the services to deliver excellent care wherever it might need to be," said Dr. Jonathan Woodson, Assistant Secretary

of Defense for Health Affairs. "That's one end of the issue. The other end of the issue is making sure we understand how we need to organize to be ready to deliver care in the operational environment, whatever that environment may predict."

Two months ago, Woodson visited the Pacific region to meet with senior line and medical leaders. The trip included stops in Hawaii, Guam, South Korea and Japan. He discussed the challenges they face and heard the opportunities they identified to provide care in the region. The sweeping geographic distances between military medical facilities represent one of these challenges. Woodson looks to help alleviate this through the use of telehealth technology.

"We have to leverage technology to advance and set a standard for telehealth and teleconsultation practices," he said.

Telemedicine is allowing health care providers to deliver clinical care, emergency assistance and additional medical services to remote locations that might

otherwise not have access to specialized care.

"It is really going to be an important part of the strategy of the future to deliver full-spectrum care in these geographically disparate regions," Woodson said. "We've got to have a means of providing sophisticated consultation to these more remote areas. What that means for us is retooling the way we deliver care and enhancing our ability to deliver telehealth on a robust platform of primary care and specialty care."

While traveling throughout the region, Woodson also visited some of the commercial hospitals that the Department of Defense partners with to provide care to TRICARE beneficiaries. Here, he saw firsthand how the MHS works with host nations in the region.

"The medical profession in each of these countries is often slightly different," Woodson said of these host nation health facilities, "and this is the challenge of providing care and partnering with host nations. All in all, it's going well, but we need to look at the pres-



A Cambodian medical student records Hospital Corpsman 2nd Class Jason Smith showing a group of Cambodian medical students how to make a cast aboard the Military Sealift Command hospital ship USNS Mercy (T-AH 19) during Pacific Partnership 2012. (Photo by Kristopher Radder)

asures of what's happening with private medical systems in these areas and make sure that we have plans in place so that there are no vulnerabilities in the care provided to beneficiaries."

Another priority in the Asia-Pacific region is humanitarian aid. The Department conducts a number of regular humanitarian missions, such as Pacific Partnership, the largest annual humanitarian and civic assis-

tance mission in the Asia-Pacific Region. During the 2012 Pacific Partnership mission, personnel aboard the hospital ship USNS Mercy provided medical and dental care to more than 49,000 people and assisted in refurbishing health clinics and delivering medical supplies. The annual mission, which is rotated yearly between the Mercy and the USNS Comfort, partners with host nations in the region and includes participation from a variety of non-governmental organizations. These missions will continue to be important as more U.S. focus shifts to the Asia-Pacific region, since they provide needed assistance and healthcare to host countries, build ties, build trust and strengthen relationships.

In addition to regularly scheduled humanitarian assistance programs, U.S. military medical personnel also provide disaster relief and emergency humanitarian aid throughout the region. The

most recent example being the 9.0 magnitude earthquake and subsequent tsunami that struck eastern Japan in March 2011. In the aftermath, service members worked alongside their Japanese counterparts in "Operation Tomodachi," or, "Operation Friendship," to provide aid to affected areas. Operations like this are something Woodson sees as a critical component of U.S. military medical operations in the area.

"We have to be prepared to respond not only to assist populations and sovereign nations, but to assist our own beneficiaries who may be deployed or living in those regions," said Woodson. "Tomodachi was an example of that, where we both assisted the host nation and responded to the needs of our people very effectively. We provided them with information, evacuation and longitudinal follow up that is very important. That builds trust."

As future strategy shifts to become more focused on the Asia-Pacific region, Woodson is certain that U.S. Military medical personnel will continue to rise to the challenge. "Our people are doing a tremendous job out there," he said, "They're very enthusiastic about their mission and doing an excellent job."+

Dr. Jonathan Woodson (left), Assistant Secretary of Defense for Health Affairs, recently visited the Pacific region where he met with senior line and medical leaders. (Photo by Capt. Tonya Hall)



NAVY SURGEON GENERAL VISITS NAMRU-6 PERU

Story and photos by Capt. Dora Lockwood | U.S. Navy Bureau of Medicine and Surgery Public Affairs Officer



U.S. Naval Medical Research Unit No. 6 employees, Helvio Astete and Guillermo Iñapi, demonstrate mosquito capture to Vice Adm. Matthew L. Nathan, U.S. Navy surgeon general and chief, Bureau of Medicine and Surgery, and U.S. Air Force Lt. Col. Eric Halsey, head of the NAMRU-6 Virology Department.

Far from American soil, in the country of Peru, 14 U.S. service members serve in one of the most unique assignments the Navy has to offer. Working alongside 320 Peruvian scientists, the U.S. Naval Medical Research Unit No. 6 (NAMRU-6) conducts research on infectious diseases that pose a health risk to the military and other countries in the region.

Vice Adm. Matthew L. Nathan, U.S. Navy surgeon general and chief, Bureau of Medicine and Surgery, observed some of the cutting-edge work being done by Navy Medicine's research and development enterprise during his visit to NAMRU-6 in January.

"Navy Medicine's mission is one with a truly global footprint," said Nathan. "Naval Medical Research Center, Navy Medicine's global biomedical research and development enterprise, is engaged

around the globe, operating forward and providing a world-wide health benefit."

NAMRU-6, commanded by Capt. David Service, has the unique distinction of being the only U.S. military command in South America. Not only is the laboratory unique in that regard, it is also unique in the research it conducts and collaborative engagement with many partners.

"NAMRU-6 is engaged in a long war," said Service. "It's not a shooting war, but the consequences of losing the battle against infectious disease are just as deadly. Our enemy, the viruses, bacteria, and vectors that cause disease are agile, resilient, and merciless. The scientists at NAMRU-6 along with our Peruvian and international partners all recognize what's at stake and are tireless in the ceaseless effort to track and identify pathogens that threaten us all."

During his visit, Nathan was briefed by personnel assigned to the unit on a wide spectrum of research topics, including entomology, bacteriology, virology, emerging infections and parasitology. In addition, he witnessed firsthand some of the work being done in the field.

While at the NAMRU-6 site in Iquitos, a large city in the Amazonian rain forest which can only be reached by airplane or boat, Nathan observed mosquito collection activity in support of dengue virus research.

U.S. Air Force Lt. Col. Eric Halsey, head of the NAMRU-6 Virology Department, explained that current research efforts in Iquitos focus on epidemiology, mosquito control strategies, rapid diagnostics and transmission dynamics.

Halsey described a two-year, detailed study of dengue virus transmission, in



U.S. Air Force Lt. Col. Eric Halsey, head of the NAMRU-6 virology department, Vice Adm. Matthew L. Nathan, U.S. Navy surgeon general and chief, Bureau of Medicine and Surgery, Capt. David Service, NAMRU-6 commanding officer, and the phlebotomy team head to a house in the Belen neighborhood of Iquitos as part of a NAMRU-6 research protocol on causes of febrile diseases in the tropics.



Rosa Castillo, laboratory technologist in the department of bacteriology at NAMRU-6, prepares stool cultures to detect enterotoxigenic *E. coli* (ETEC) after a bacterial challenge following vaccination of *Aotus nancymae*.

which partnering scientists from University of California-Davis, San Diego State University, University of Iowa, Tulane University and Emory University found that human movement is a key component to transmitting the disease. The recent research was supported by funding from the National Institutes of Health, the Military Infectious Dis-

eases Research Program and the Global Emerging Infections Surveillance and Response System.

"This was a multi-year endeavor that relied heavily on the input of a wide array of scientists from different disciplines," said Halsey. "The research team included entomologists, social scientists, disease modelers, and physicians."

Nathan emphasized the importance of the research being done by our world-wide naval medical research centers, labs and units and the direct impact on the health and readiness of our Navy and Marine Corps personnel, our joint partners, sister services, and the world's population.

"Infectious disease is one of the world's greatest killers. Our troops are at more risk from disease than they are from bullets and bombs," said Nathan. "What you do here makes a difference in keeping all of our service members healthy, infection-free and medically ready."

Nathan thanked the NAMRU-6 personnel for the difference they are making in the world and for being ambassadors of global health engagement.

"I thank you for the friendships and partnerships you are creating and nurturing here," said Nathan. "The research you are doing in Peru is important to the world. Not only does the research you do enhance the health and readiness of our military personnel; it is this type of collaboration that makes the world a stronger, safer place for all of us." +

NAVY CORPSMAN MAKES CAREER AFTER LIFE AS POLICE OFFICER

Story and photo by Marine Corps Staff Sgt. Robert L. Fisher III | 24th Marine Expeditionary Unit

From a police officer in Kingston, Jamaica, to a barber in New York City, Hospital Corpsman 3rd Class Steve A. Barnes, 35, has held many jobs throughout his life. But his time as a Navy hospital corpsman with the 24th Marine Expeditionary Unit has tested him much differently than his previous life experiences.

Barnes currently serves as a corpsman with Alpha Company, Battalion Landing Team 1st Battalion, 2nd Marine Regiment, 24th MEU, and has been deployed since March 2012. Since completing field medicine school and jumping into the Fleet Marine Corps, Barnes has seen rare opportunities to work his practice. That changed quickly April 11, 2012, when an MV-22B Osprey crashed in Morocco resulting in the death of two Marines and two others being seriously injured.

"My guys were 200 yards away from the crash. We have two bags for field medicine, I remember I grabbed my big bag and just started running. After I got there, it was chaos. We set up a receiving area and they pulled the first guy out, he was in pain. That's when this deployment became real for me," said Barnes.

He went straight to work cordoning the area so the other corpsman could aid the Marines being pulled out of the downed aircraft. He then kept the 24th MEU leadership informed by relaying the injured Marines' information and medical condition.

"After the adrenaline wore off, it was surreal, like a dream," he said. "I've never lost a Marine, but I felt like I lost mine that day."

The experience allowed Barnes to reflect on much of his life and experiences which have led him to where he is today. Before Morocco and the 24th MEU,

Barnes spent much of life bouncing between occupations.

He began his multiple-career movement as a police officer in Jamaica.

He worked the beat for a year then moved to a quick response team, working gun-related crimes until he became part of a crime investigation division, where he learned crime scene photography.

"As a police officer, you're dealing with people from every walk of life," he said. "Far from fighting crime, you help a lot of people so there's a lot of mentoring and you learn about other people's problems and how you can help them."

He finally made the move to the U.S. in 2005 when he settled in New York City. He worked an assortment of jobs over the next few years until finally enlisting in the Navy in 2010.

"It's said Jamaicans have a lot of jobs. This is true, you learn a lot of skills so you can make money here and there. Versatility comes with travel. You'll find Jamaicans all over the world. In order to survive, you learn to do a lot of stuff," said Barnes.

The decision to join came during a lull in his life.

"I was bored. I wanted to do something but I didn't want to be a cop again. The Navy offered going all over the world, so why not," he said.

Of course, going "green" was the next step in his future travels as a corpsman. Green-side corpsmen are those who work directly with Marines and undergo rigorous field training, which differentiates them from "blue" side corpsman, who practice primarily in hospitals and clinics. The green-side corpsmen, known among Marines as "doc", must attend field medical training where they conduct several long-distance hikes

while also learning urban warfare and land navigation.

"When I was going to join, I was going to be a green-side corpsman," he said. "I'm an adrenaline junkie and all the guys at my course were like, let's go to field medicine. I felt like it was the right thing to do... I get to be called doc, a title of endearment."

Joining the Navy three years ago to become a hospital corpsman was yet another challenge he sought to overcome.

"After being a police officer, I wondered if I could handle the physical training again because I'm in my 30s, but I roughed it out and here I am," said Barnes.

A hospital corpsman handles the medical care of Marines and Sailors through the prevention and treatment of disease while also assisting Navy health care professionals. While many of them may function in a clinic or medical treatment facility they can also serve on the battlefield with the Marines. Their vital role as a corpsman can save lives through their ability to render emergency medical treatment in a combat environment.

Despite the challenges he's faced over this deployment, Barnes remains positive about his experience as a doc for the Marines. He anticipates the upcoming return of the 24th MEU and whatever the future may hold in travel and experience. He intends to continue his travels to wherever the Navy may take him next.

The 24th MEU is returning home in the coming weeks to their home bases in and around Camp Lejeune, N.C. They have been deployed for nine months as an expeditionary crisis response force in the U.S. Navy's 5th and 6th Fleet areas of responsibility. +

R CHANGE OFFICER



Navy Hospital Corpsman 3rd Class Steve A. Barnes, Alpha Company, Battalion Landing Team 1st Battalion, 2nd Marine Regiment, 24th Marine Expeditionary Unit, poses for a photo in the hospital bay of the USS New York (LPD-21). Barnes has spent the last nine months deployed with the 24th MEU, which is currently returning home after completing a successful deployment as an expeditionary crisis response force in the Navy's 5th and 6th Fleet areas of responsibility.

HELPING AMPUTEES OVERCOME INJURIES

By Mass Communication Specialist 2nd Class Jessica Tounzen | Naval Medical Center San Diego Public Affairs



Secretary of the Navy (SECNAV) the Honorable Ray Mabus, center, along with Brian Zalewski, prosthesis practitioner, observes Marine Lance Cpl. Jese Shag as he takes his first steps with his new prosthetic leg in the prosthetic lab of the Comprehensive Combat and Complex Casualty Care (C5) facility at Naval Medical Center San Diego. (Photo by Mass Communication Specialist 1st Class Anastasia Puscian)

A

s children, when we fall off our bikes the first time riding without training wheels, when we sprain our ankles playing football, or when we take a line drive to the shins during a baseball game, we are encouraged to stand up, dust ourselves off, and get back in the game. As adults, we'll go on to face

bigger obstacles and more troubling injuries, but that voice is always there in the back of our head, telling us not to give up and helping us get back on our feet.

For amputee patients undergoing treatment in the prosthetics lab at Naval Medical Center San Diego's (NMCSD) Comprehensive Combat and Complex Casualty Care (C5) facility, Brian Zalewski is doing just that.

Zalewski, a native of Marshall, Mich., is C5's newly-appointed head prosthetist who has fabricated nearly 75 prosthetic limbs for approximately 200 patients over the past five years of employment in C5's prosthetics laboratory. A compact frame, neat appearance and quick smile are the first things you notice about Zalewski. The next is his genuine desire to help amputees regain mobility.



Brian Zalewski (left), a prosthetist at Naval Medical Center San Diego's (NMCS D) Comprehensive Combat and Complex Casualty Care (C5), explains procedures to Adm. James A. Winnefeld Jr., Vice Chairman of the Joint Chiefs of Staff, during his visit to NMCS D. (Photo by Mass Communication Specialist 3rd Class Clay M. Whaley)

Zalewski describes his experience treating a Navy diver with a single amputation back in 2009. The diver had lost his leg below the knee, and told Zalewski he wanted something to help him continue to pursue his love of swimming.

After conducting some drag tests in the swim flume at San Diego's Naval Health Research Center, Zalewski came up with a solution: a makeshift fin. Zalewski was able to obtain a special ankle from a prosthetic manufacturer that was designed in such a way that pressing a button would allow the foot to bend backwards, an effect similar to that of standing on tiptoe to reach a high object.

Zalewski then constructed a socket to allow for seamless movement between the patient's leg and the prosthetic ankle. The finished product was a success; Zalewski still receives calls from the

patient occasionally, updating him on his progress which was made possible with his help.

Zalewski earned his Bachelors in Zoology from California State University Dominguez Hills in 2004. Following his graduation, he completed a year-long residency at the West Los Angeles and Long Beach Veterans Affairs hospitals.

He started out fabricating prosthetic legs for wounded warriors at these two hospitals. He was interested in a medical field that was unique and would allow him to use his hands - prosthetics seemed like a good fit.

After gaining experience as a prosthetic technician, he went on to earn his certification in prosthetics in early 2007.

During his subsequent employment in the orthotic and prosthetic clinics at the University of New Mexico's Carri Tingley Hospital, he heard about a new facility opening in San Diego to

treat the diverse and complex needs of wounded, ill and injured service members and others in need of comprehensive care. He investigated the opportunity and was hired as one of C5's prosthetist in, June 2008.

"I just heard about the facility and wanted to get into that type of prosthetic work," said Zalewski. "I wanted to help those young, active patients who want to push the limits of their prosthetics. I have a great deal of respect for the military and I wanted to give back."

Giving back to those who have made such great sacrifices meant caring for patients whose injuries are often extensive and complex, requiring prosthetics to be custom designed to each individual patient's needs.

"Over the last year or two, the number of bilateral amputations (more than one limb) has been very high. Anytime there are multiple amputations, the



Adm. Cecil D. Haney, (left) commander of U.S. Pacific Fleet, and U.S. Pacific Fleet Master Chief John Minyard, center, listen as prosthetist Brian Zalewski explains the role of the prosthetics department at the Comprehensive Combat and Complex Casualty Care (C5) facility at Naval Medical Center San Diego during their visit to the medical center. The goal of their visit was to tour the C5 facility and raise morale of staff and wounded, ill and injured service members. (Photo by Mass Communication Specialist 3rd Class Clay M. Whaley)

greater the complexity of prosthetics needed," he said. "If it's one joint, two joints, if they're missing an arm or fingers, it all has to be able to work together. If someone's missing an upper extremity they still have to be able to put a prosthetic on their lower extremity ... my job is to make it all mesh seamlessly," said Zalewski.

Despite his daily contact with patients coping with such devastating injuries, Zalewski says those patients are also some of the most tenacious of any he has ever met.

"They don't think about what they could be doing; they just want to do it. They're always asking me, 'what can I do next?' They never settle. They want

to walk, and if they can walk, they want to run. If they can run, they want to ride a bike."

Zalewski is determined to help them get there. His methods are simple: assess the patient's medical condition and unique needs, but also sit down with them to find out what their end goal is. He is also careful to impress the im-



"It's not like a surgery where you follow up after the procedure and that's it. With these guys, they're **ALWAYS** going to be **ADAPTING**, doing this activity or trying that sport. It's an **ONGOING** thing and that's what's so **UNIQUE** about this field."

- Brian Zalewski, head prosthetist, Naval Medical Center San Diego Comprehensive Combat and Complex Casualty Care facility

science but it's also an art, he says. And it doesn't stop there.

"I've built lifelong relationships with my patients," he says. "It's not like a surgery where you follow up after the procedure and that's it. With these guys, they're always going to be adapting, doing this activity or trying that sport. It's an ongoing thing and that's what's so unique about this field."

The fruits of his labors and the success of Zalewski's relationships with his patients can be seen in those who have gone on to train for various Paralympic events or participate in the Warrior Games. Additionally, one of Zalewski's recent patients just scaled the 10,000-foot-tall Mount Baldy, the highest peak of the San Gabriel Mountains and the highest point in Los Angeles County. His next goal is to travel to Argentina to climb a mountain double its height.

Zalewski will accompany ten C5 amputee patients to the 25th Annual Hartford Ski Spectacular at the Breckenridge Ski Resort in Colorado, Dec. 2-9. During this weeklong adaptive ski program he will be able to see his patients hit the slopes and discover their ability to get back up after falling off that bike without training wheels.

"They'll be able to get out there and see people with similar injuries doing

things they themselves thought they'd never be able to do again, or something they thought they'd never be able to try after they were injured," he said.

Zalewski says he feels very proud when he sees the difference he has made in his patients' mobility and the positive effect he has had on their lives.

"It's very rewarding seeing my patients come into the prosthetics lab in a wheelchair and leave with running legs when they never thought they'd have to learn how to walk again," he said. "It's like seeing your kids take their first steps."

In addition, C5 has hired an additional new prosthetist scheduled to start Dec. 10 and a third prosthetist position is currently being advertised.

Since 2007, C5 has provided medically-advanced rehabilitation to more than 1,600 wounded, ill and injured service members through outpatient rehabilitation and inpatient care prior to returning them to active duty or transitioning them to civilian life. In the first three quarters of 2012, C5 fitted patients with 470 devices. The prosthetics lab recently underwent an expansion during which the therapy pool was filled with concrete to make room for two additional treatment rooms, a check-in area, storage space, and a second set of parallel bars. +

portance of patience while allowing the wounds to heal. He encourages setting goals and helps his patients understand what it will take to reach them.

Once the patient's individual treatment plan is laid out, it's time for Zalewski to fabricate a device that will allow the patient to do something they might not otherwise be able to do. It's a

CELEBRATING A CENTURY

Former Navy doctor who witnessed Pearl Harbor attack turns 100

By André B. Sobocinski | U.S. Navy Bureau of Medicine and Surgery Historian



Photo of the USS Solace (AH-5) in 1941 (Photo courtesy of the Carleton Family)

In December 2012, as citizens of the world prepared for the end of another year, one former Navy physician took the opportunity to mark an important centennial anniversary—his own.

Born in Newton, Mass., on Dec. 3, 1912, Dr. William Carleton entered the Navy in August 1941 and soon after received orders for the newly commissioned hospital ship USS Solace (AH-5) bound for Pearl Harbor. On the morning of Dec. 7, 1941, Solace lay anchor off “Battleship Row” at Ford Island during the surprise attack. Dr. Carleton was among those who performed heroically trying to save lives after the first Japanese bombs fell.

On that fateful morning, Dr. Car-

leton was having breakfast with his wife Isabel ashore at the Pleasanton Hotel in Honolulu when they turned on the radio and learned that things were not copacetic on the island.

“We heard this voice that said ‘the island of Oahu is under enemy air attack,’” Carleton remembers. Carleton hitched a ride to the base and got a launch to the Solace. He and his colleagues aboard Solace would spend the next days taking care of hundreds of casualties, most of whom suffering from burns and shell shock. Seventy-one years later, Dr. Carleton’s mind is full of impressionistic memories of the day. He recalls picking up wounded sailors and Marines out of the water and bringing

them aboard the hospital ship; and of “treating” burns with tannic acid that would allow infection to grow underneath. Thoughts of certain patients still stand out in Dr. Carleton’s mind to this day.

Two days after the attack, Carleton was on duty when a Sailor was brought aboard covered in oil. “The man had been rescued through a hole cut at the bottom of the Oklahoma,” Carleton said. “He had been treading water and oil for two days. And they heard him banging on the hull and they pulled him out. If there was ever a man who represented resurrection from the dead it was that guy.”

Carleton detached from the hospital

ship in May 1942. Over the course of his naval service, he would serve at Naval Hospital St. Albans, N.Y., the naval dispensary in Bayonne, N.J., and finally at Fleet Hospital 103 in Guam where he treated many of the repatriated U.S. Prisoners of War. Carleton left the Navy in November 1945 as a commander. After the war, he ran a family medicine practice from his home—even making house calls—until transitioning in 1989 to a consulting job where he conducted utilization reviews for Massachusetts hospitals. Carleton retired in 1992.

When Carleton thinks about his military service he admits he had difficulty adjusting to Navy culture.

“One day the executive officer [of USS Solace] said to me, ‘Carleton, don’t ever talk to me again ‘uncovered.’”

“I didn’t know what that meant at the time and told him I would go upstairs and he said, ‘That’s a ladder!’”

Later when Carleton began growing a mustache while aboard the ship the commanding officer called him into his office and said, “Carleton, who said you can grow a mustache?” Carleton humorously recalls, “He said, ‘You get permission through your duty officer (and then it is) referred to me,’ which I did. And then he called me in and said ‘Permission denied.’”

In looking back over the last 100 years, Dr. Carleton is most amazed at the progress of medicine in his lifetime. “Most of my interesting thoughts come with the developments of eradicating diseases like polio and rheumatic fever,” said Carleton. “I used to have two or three cases of rheumatic heart disease or rheumatic fever on the wards. When penicillin came in rheumatic fever was no more. People died much more frequently of coronaries than they do now. Of course, the antibiotic has, overall, done more good than any other. Then comes open heart surgery. What’s been accomplished there is amazing. And then you have the steroids and cortisone. Some of the diagnostic techniques like MRI and ultrasound. Gosh, there are so many achievements.”

Dr. Carleton knows his three digit age puts him in select company, but sometimes this can be hard to accept. He admits that, “Sometimes I will be



Portrait of Dr. Carleton in 1941 (Photo courtesy of the Carleton Family)



Naval Hospital Pearl Harbor in 1941 (Photo courtesy of the Carleton Family)

sitting with a group of old people and say to myself, ‘What the heck am I doing with all of these old people?’ I never really felt the age up here [points to his head]. My body feels it. My legs are weak, but I think younger.” However,

Carleton would not steer a different course for his life. “I had a very, very happy life. Full of love and wonderful kids. My wife and I had some wonderful times. I can’t think of anything I would ever change.” +

A UNIFIED RIVALRY

By Cmdr. Mark Lenart, Lt. Cmdr. Ian Valerio, Lt. Cmdr. Malcolm Masteller, and Lt. Cmdr. Denis Primakov

Each December Americans pause to watch a gridiron war—the annual Army-Navy football game, in which bragging rights rest either in West Point, N.Y., at the United States Military Academy, or in Annapolis, Md., at the United States Naval Academy.

Since its inception on Nov. 29, 1890, the two storied rivals have faced off against one another 112 times. Going into this year's 113th meeting, the Navy Midshipmen lead the Army Black Knights in the series, 55 games to 49 games, and there have been seven ties. Many famous players have participated in this long-standing football rivalry. Among the most famous are: Doc Blanchard, Glen Davis, Pete Dawkins, Joe Bellino, and Roger Staubach. Together these two teams have claimed four national championships.

Less well-known, however, and currently working behind the scenes is the Army-Navy team in Kandahar, Afghanistan, at the NATO Role Three Multi-national Medical Unit, affectionately known as the Combat Hospital. An inspiration for CBS' television drama in 2011, the hospital is located in southern Afghanistan, traditionally considered the operational birthplace of the Taliban, and is tasked with taking care of wounded coalition soldiers, as well as certain Afghan casualties. Born in 2005, the hospital operates as a world-class combat trauma hospital. The U.S. Navy began leadership of the hospital in 2009, receiving it from the Canadians as a multi-national medical unit. Within the doors of this world-class medical facility lies a premier example of joint service cooperation.

The picture of "Jointness" (a common euphemism) is seen as soon as one enters the 70,000 square foot, state-of-the-art facility. Typical Navy staff consists of approximately 220 active duty sailors and reservists. Naval personnel deployed to the NATO Role Three include Medical Corps specialists representing the fields of trauma surgery, general surgery, neurosurgery, oral maxillo-facial surgery, orthopedics, ophthalmology, plastic and reconstructive surgery, anesthesiology, emergency medicine, critical care medicine, internal medicine, neurology, diagnostic and interventional

radiology, and family practice medicine. Similarly, a diverse and widely specialized contingent of Nurse Corps officers and Navy corpsmen are integrally involved in all aspects of the hospital's daily operations, delivering world-class health care to our extensive patient base. In addition, Navy personnel from the Supply Corps and from Logistics provide critical support for the daily operations of Afghanistan's busiest combat hospital.

The U.S. Army also contributes a number of critical components to the Role Three. The Dental clinic is led and staffed by Army active duty and reserve personnel. Furthermore, a number of non-medical personnel volunteer at the hospital, assisting our medical staff as well as attending to the needs of our wounded warriors, coalition forces, and Afghan patients—a volunteer base that is mostly represented by Army Soldiers interested in giving their time and effort to the combat wounded. The outpatient clinic, known as the Referral Care Center (RCC), is also integral to the mission of the hospital, and is another area that demonstrates the close collaboration between the Navy and the Army.

The RCC functions to evaluate complex patients stationed at outlying bases throughout western and southern Afghanistan. It is staffed by full-time Navy nurse practitioners and Navy primary care physicians who work in conjunction with many Army medical personnel deployed to more remote locations in the further evaluation of service members and patients distributed throughout Afghanistan. The RCC acts as a model of unity and teamwork between the Services.

The Warrior Recovery Center is a residential and outpatient military medical facility that provides short-term comprehensive and integrative care to those select soldiers who suffer from certain combat related injuries, traumatic brain injury (TBI), and/or combat stress. The facility is staffed by 15 Navy, Army, and Air Force personnel and houses health care services such as nursing, case management, physical therapy (PT), occupational therapy (OT), a full complement of mental health services, and a mild traumatic brain injury (mTBI) clinic. This collaborative effort provides these services in an environment condu-

THE COMBAT HOSPITAL IN KANDAHAR, AFGHANISTAN, IS A FUNCTIONING EXAMPLE OF THE SYNERGY OF EFFORT THAT IS POSSIBLE WHEN ARMY AND NAVY EXPERTISE IS SUCCESSFULLY LINKED.

cive to recuperation and healing for those deemed appropriate to stay in Afghanistan and return to their units.

Other departments that demonstrate the seamless inner workings of the services include the dual-staffed Patient Administration Department as well as the hospital's laboratory. The Joint Combat Casualty Research Team (JC2RT) office is located near the hospital and exists to foster and facilitate mission relevant medical research, performance improvement and evidence-based medical practice in Afghanistan. Similarly, the Joint Theater Trauma System (JTTS) was developed as systematic and integrated approach to better organize and coordinate battlefield care to minimize morbidity and mortality and optimize the ability to provide essential care required for casualty injuries. Staffed by personnel from the Army, Navy and Air Force, they effortlessly support medical research designed to improve the care of those wounded in combat. The combined efforts of these departments facilitate world-class care for any wounded Sailor, Soldier, Airman, or Marine who comes to the door.

The Combat Hospital in Kandahar, Afghanistan, is a functioning example of the synergy of effort that is possible when Army and Navy expertise is successfully linked. However, one would be mistaken if to conclude that individual service loyalties do not exist. Illustrating this, on the morning of the traditional football game between the academies, Soldiers and Sailors met on a gridiron of our own: Army and Navy personnel faced off against one another as they participated in a friendly flag football game at Kandahar Air Field. Though none of these flag football stars are likely to be famous athletes, the winners no doubt proclaim victory forcefully, and have obtained gloating rights in Afghanistan—at least, until next year's game. 🇺🇸



Navy nurse practitioner Lt. Cmdr. Sean Burson and Army Maj. Alan Ali, 120th Engineer Battalion Physician Assistant, test a patient's joints at the Referral Care Center, Kandahar, Afghanistan. (Photo courtesy of Task Force Medical-Afghanistan)

SAILOR STRIVES FOR GREATNESS

Story and photos by Marine Corps Cpl. Kyle N. Runnels | 26th Marine Expeditionary Unit



Brought up in a self-described normal American family with two sisters, a mom, and a dad, Navy Hospitalman Nicholas C. Covington, a Gadsden, Tenn., native, and corpsman with Combat Logistics Battalion 26, 26th Marine Expeditionary Unit, has always been an outgoing and sociable person, capable of setting goals and executing them to the best of his ability.

Graduating from Crockett County High School in 2009, Covington had a very fulfilling high school experience with multiple extracurricular activities.

"I played for the varsity tennis team," said Covington. "It's hard to explain, but I enjoyed it more than any other sports I played. I enjoyed the fact there wasn't a whole team running around. It was just you against someone else — sometimes two if you were playing doubles."

One of the more notable accomplishments of his high school career was the fact he

took certified nursing assistant courses and joined his high school's Health Occupations Students of America club, eventually becoming the president of his school's club and leading the bio-medical debate team to a triumphant year.

"We competed in regional, state and national competitions," he said. "We placed first in regional and first in state, but unfortunately didn't place in nationals."

His attraction to the medical field was supported by the desire of setting a foundation for a strong future. With his passion for and success in the medical field, and having many close relatives in the Navy, he decided to join the family legacy, enlisting Oct. 28, 2009.

"I decided to try it, and it called to me, which is why I am a corpsman now," said Covington. "I have been in for three years now, and I just enlisted for another four. Eventually, I want to finish my bachelor's degree, and go to medical school to become an emergency room physician or get commissioned as a medical officer in the Navy."

Instead of attending college outright, he used the Navy to help him grow up and mature.

"He is and always has been an extremely hard worker," said Lance Cpl. Brandon T. Henderson, a Madison, N.C., native, and CLB-26 bulk fuel specialist non-commissioned officer in charge. "He always has the answer if I need help with something."

Preparing to embark on his second deployment with the 26th MEU, Covington discussed one of his fondest memories from his first deployment to Afghanistan in 2011.

"I had a wounded warrior at the

Navy Hospitalman Nicholas C. Covington, a Gadsden, Tenn. native, with Combat Logistics Battalion (CLB) 26, 26th Marine Expeditionary Unit (MEU), sailed aboard the USS San Antonio (LPD-17) during the integration training of Amphibious Squadron (PHIBRON) 4 and 26th MEU. This was part of the 26th MEU's third major training exercise of their pre-deployment training process.



Hospitalman Nicholas C. Covington, a Gadsden, Tenn. native, with Combat Logistics Battalion (CLB) 26, 26th Marine Expeditionary Unit (MEU), checks inventory in a supply locker aboard the USS San Antonio (LPD-17).

combined aid station at Camp Leatherneck, Afghanistan, who took shrapnel from a pressure plate damaging his legs," he said. "I was doing his drips and changes every single day. He would specifically ask for me. One, he said it didn't hurt as much when I did it, and two, he enjoyed my company. I treated him like he wanted to be treated – like a human being, not a cripple needing special care. The day he left Afghanistan to go home, I was sitting there getting ready to smoke a cigarette. As I was getting ready to light it, I looked up as he was walking up to me, off his crutches, and held up a lighter and lit it for me. When I questioned what he was doing, all he said was 'thanks.' I will always remember that because he walked all the way across camp to make sure he got to sincerely tell me thanks. I never had that before."

Covington went on to say he was thanking him for caring about people as a whole. The wounded warrior didn't feel Covington was doing it because it was his job, but because he actually

cared about the person. He told Covington the impact he made on him and the amount of compassion he showed helped him get through that unfortunate period of his life.

"Covington has always been the person to go to if you need help," said Lance Cpl. Sam D. Selder, a Wappingers Falls, N.Y., native and bulk fuel specialist with CLB-26. "Whether it is a medical issue or a personal one, he is always willing to help unconditionally. He has always been that kind of person. If anyone is having a bad day, he is always the

one to cheer them up."


He spends his spare time working on his car, showing it at car shows with his car club, Cups and Cones. He also enjoys going to concerts with friends on the weekends and playing his acoustic guitar. In the future, he plans on putting together a band with a few other people from his unit.

Covington's dedication to his work, the medical field, and the Navy, promises a bright future ahead as he looks forward to continuing his career and his life with his wife to be. +

"He **always** has the **answer** if I need **help** with something."

- Marine Corps Lance Cpl. Brandon T. Henderson

T F Navy



Ian Lawler, a Navy hospital corpsman at the Robert E. Bush Naval Hospital, teaches mixed martial arts and Brazilian Jiu Jitsu in his spare time.

THE FIGHTER

corpsman overcomes obstacles to chase passion

Story and photos by Cpl. Sarah Dietz | Marine Corps Air Ground Combat Center Twentynine Palms

On the mats, in a ring, or in a cage, Ian Lawler fought for his purple belt in Brazilian Jiu Jitsu.

To gain a new experience with life and to find new challenges, Lawler, a Navy hospital corpsman at the Robert E. Bush Naval Hospital, left his home in Somerset, Ky., and joined the Navy.

Lawler is a family man. His wife, Tasha, and his daughter Aaliyah, are something he fights for at home. His wife is pregnant again. Lawler might be in for a couple of more rounds soon.

Lawler's father introduced him to fighting at the age of 12 to stand up to bullies; to stand up for himself. He was always smaller than the average kid.

He has been fighting ever since.

Fighting for Work

Lawler always wanted to be a profes-

sional fighter. He achieved that at the age of 19 by winning two fights.

He joined the Navy when he was 20 when he realized he needed a change.

"I was in a dark time in my life and I thought the military would be a fresh start," he said.

He had to put his pro fighting career on hold, but that didn't mean he stopped fighting.

At Naval Hospital Corps School, Great Lakes, Ill., he started teaching his classmates Jiu Jitsu in the lobby of his barracks. The commanding officer gave Lawler an allotted time in the gym to teach when the class got very popular among the students.

Lawler knew how to fight, but he didn't really know how to instruct others in this martial art.

"I was looking at YouTube videos to help me teach," he said. "When I left the school, I left the class in the hands

of a guy who was a blue belt and had a knack for teaching."

As Lawler progressed in the military, his fight career took a heavy blow, and a series of injuries left him in a seemingly downward spiral.

He attended the Basic Reconnaissance Course at Marine Corps Base Camp Pendleton, Calif., but had to drop out of the course due to a hip injury.

Later, Lawler was attached to 1st Battalion, 7th Marine Regiment. Weeks before the unit's deployment to Afghanistan, Lawler suffered an ulcer burst in his intestine, fighting for his life during pre-deployment training. He was air-lifted to the hospital and placed in surgery.

He recently received shoulder surgery due to multiple tears in his right shoulder.

Lawler looks at his injuries as a hin-



Ian Lawler looks over his students as they perform exercises during his Brazilian Jiu Jitsu class at Neo Warrior MMA N' Boxing Gym. Lawler, a Navy hospital corpsman at the Robert E. Bush Naval Hospital, volunteers his time to teach mixed martial arts before and after work three days a week. He is a purple belt in Brazilian Jui Jitsu.

drance, not a deal breaker.

"It helps me be hungry to fight," he said. "The military aspect at this point with being injured doesn't really pose any threat to my passion. But, when I'm ready to compete, I'm sure it will aggravate to some degree but no one put a gun to my head and said sign. My goal is to be back in the gym."

Fighting for Family

Balancing family and his passion for fighting is important to Lawler.

"Balance is a challenge. People who are not martial artists, cannot understand. We strive to train as long and as hard as we can. The only way to counteract that is simply make the most of your time at home. Do your best to incorporate your family into your passion so they don't feel left out of what can quickly become a major part of your life," Lawler said.

"Fighting has always been a huge impact on our lives," Tasha said. "He has always found some way to integrate it

into the conversation. He talks about it all the time."

Lawler met his wife Tasha while attending McCreary Central High School. They were married in 2008.

"We are from the middle of nowhere; we really didn't go on dates," Tasha said. "The first time we hung out, we sang karaoke."

Lawler's wife also knows a thing or two about fighting. Tasha enlisted in the National Guard in 2009 but couldn't continue when she fell off a 20 foot obstacle and broke her right foot and leg.

"I always wanted to go into the military, my plan was to go active duty after I got my nursing degree," she said. "We were having issues at the time. I was going to be put in the next training cycle, but my grandpa told me that my family was more important so I chose not to."

Though the experience didn't go the way she thought it would, she can see the impact it had on her life, even today.

"I think God used the military to mold me into a better person," Tasha

said. "I made a 180. I became very strong in my walk with God, I felt like I could take on anything."

The day after Tasha exited boot camp, her grandfather died, giving Tasha a devastating blow. However the family tragedy grew the family closer.

"My family is stronger because of it," Tasha said. "He was my crutch, and it forced me to stand on my own."

It was a fight, but Lawler and Tasha fought through the pain and early marital struggles, and are stronger now from their fight.

"I live by this," Lawler said. "I am a Christian first, husband, father, fighter, then corpsman."

Lawler's family is growing, as he is planning on adopting his 11-year-old niece and Tasha recently found out she was pregnant.

Adopting their niece, Danielle, is very important to the Lawlers.

"I came from a rough abusive childhood and she is growing up similarly," Tasha said. "I want to give her a chance.

"I was in a dark time in my life and I thought the military would be a fresh start."

-Ian Lawler, Navy Hospital Corpsman



Ian Lawler watches his students perform an arm bar during one of his classes at Neo Warrior MMA N' Boxing Gym in Twentynine Palms, Calif.

We have always treated her like our daughter. I want to start working with her and preparing her for college. No one in my family went to college so it was really difficult for me to prepare for it."

The adoption process however, is a fight. After three years, the Lawlers finally have temporary custody. They need to wait another year in hopes to receive full custody.

Fighting to Fight

Lawler's love for mixed martial arts started early in his life growing up in Summerset.

He moved onto amateur kickboxing and boxing when he was 16 and later went on to learn Jiu Jitsu.

"I had a rough time in middle school,

I was very small," Lawler said. "I traveled 40 miles to train three days a week in Jiu Jitsu. My coach would shut off the lights and make us fight. It was amazing how much our technique improved over a few months."

On top of his own career, Lawler offers his time to teach others to fight before and after work three days a week.

"I can take a guy with no fighting experience with the desire to fight and make him a fighter and competitor," Lawler said.

He has won the Grapplers X Advanced National Championship in 2011; the Grapplers Quest Advanced Absolute Championship- declaring him the best fighter in the advance division regardless of weight class; the U.S. Grappling Advanced Absolute Championship

and Advanced 175 pound championship.

Lawler will be preparing to fight in the International Brazilian Jiu Jitsu Federation Tournament in October – an invitation only event.

Until then, Lawler continues teaching mixed martial arts at Neo Warrior MMA N' Boxing Gym, a local gym in Twentynine Palms, and watches his students apply what he has taught them in competition.

His love for the sport gives him a big thrill out of teaching and then watching them compete.

"Being a martial artist makes you look at life differently," Lawler said. "Each time you compete you get a different sense of who you are as a fighter. I'll be doing this until I die." ♦

NAVY CORPSMEN | 7



Navy Hospital Corpsman 2nd Class Jared Curry, assigned to Afghan National C Advisory Team, 2nd Battalion, 7th Marine Regiment, demonstrates how to control bleeding during a medical training class near Forward Operating Base Now Zad, Helmand province. The advisory team work and train with ANCOP to improve security, operational readiness and medical care in the district. (Photo by Marine Corps Cpl. Alejandro Pena)



Navy Hospital Corpsman 2nd Class Rodney Redor, from Ewa Beach, Hawaii, checks the chlorine level in water aboard the Ticonderoga-class guided-missile cruiser USS Mobile Bay (CG 53). Mobile Bay is deployed with the John C. Stennis Strike Group to the U.S. 5th Fleet area of responsibility conducting maritime security operations, theater security cooperation efforts and support missions for Operation Enduring Freedom. (Photo by Mass Communication Specialist 2nd Class Armando Gonzales)

Navy Hospital Corpsman 3rd Class Elizabeth Wixey checks Electronics Technician 1st Class Bruce Anderson's blood pressure during an annual health fair aboard the guided-missile destroyer USS Farragut (DDG 99). Farragut is deployed to the U.S. 5th Fleet area of responsibility conducting maritime security operations, theater security cooperation efforts and support missions for Operation Enduring Freedom. (Photo by Mass Communication Specialist 2nd Class A.J. Jones)

AROUND THE FLEET



Navy Hospital Corpsman 2nd Class Kendrah Agostini, left, and Hospital Corpsman 1st Class Laura Jablinski treat simulated injuries on Aviation Boatswain's Mate (Handling) 1st Class Brian Roy during a mass casualty training exercise aboard the aircraft carrier USS George H.W. Bush (CVN 77). George H.W. Bush is conducting training and carrier qualifications in the Atlantic Ocean. (Photo by Mass Communication Specialist 2nd Class Timothy Walter)

Civil Order Police (ANCOP) control bleeding during a peace, Afghanistan. readiness and stability



Navy Hospital Corpsman 3rd Class Redmond Ramos dives into a pool in preparation for the first Wounded Warrior Pacific Trials at Joint Base Pearl Harbor-Hickam, Hawaii. The event was an opportunity for participants to compete for a place on the 2013 Warrior Games Navy-Coast Guard team. The Warrior Games is an annual event allowing wounded, ill and injured Service members and veterans to compete in Paralympic sports including archery, cycling, shooting, sitting volleyball, track and field, swimming and wheelchair basketball. (Photo by Mass Communication Specialist 2nd Class Jon Dasbach)

NAVY CORPSMEN | 1



Hospital
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Lt. Mike Quaglino, right, operations officer for Provincial Reconstruction Team (PRT) Farah, buddy clears an M-4 carbine for Hospital Corpsman Brian Mays, right, a medic for the PRT, upon returning from a mission to the Farah provincial director of agriculture, irrigation and livestock's (DAIL) facilities in Farah City, Jan. 8. The mission to the DAIL's facilities was to evaluate progress on a demonstration greenhouse project being built to connect Farahi farmers and the government. PRT Farah's mission is to train, advise, and assist Afghan government leaders at the municipal, district, and provincial levels in Farah province Afghanistan. Their civil military team is comprised of members of the U.S. Navy, U.S. Army, the U.S. Department of State and the U.S. Agency for International Development (USAID). (Photo by Navy Lt. j.g. Matthew Stroup)



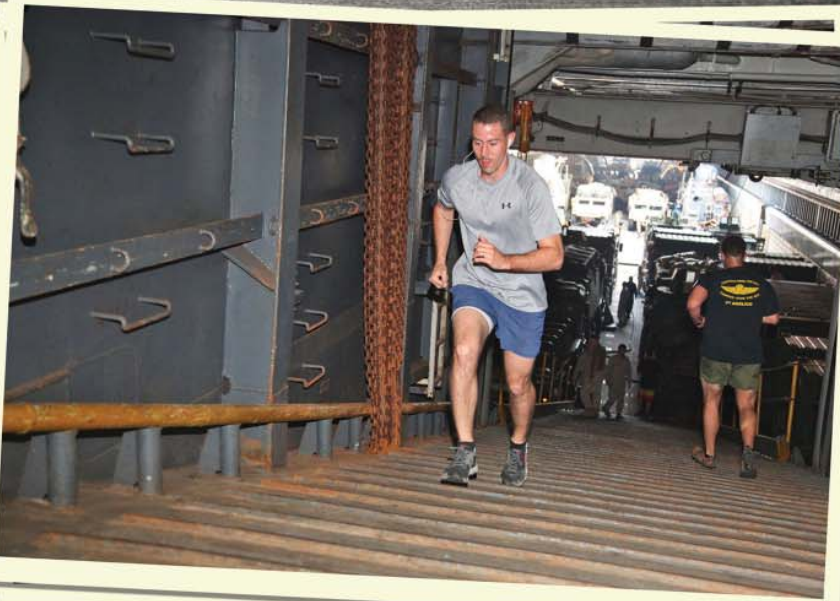
AROUND THE FLEET



Marine Corpsman 3rd Class Ross T. Slay, attached to Combat Logistics Battalion 15, 15th Marine Expeditionary Unit (15th MEU), shows children a card trick during a humanitarian mission at a remote village in East Timor during exercise Crocodilo 2012. Crocodilo is a bilateral military exercise and humanitarian project between the 15th MEU and the Timor-Leste Defense Force.
(Photo by Marine Corps Lance Cpl. Timothy Childers)



Hospital Corpsman 2nd Class Emil Agas, from Chicago, conducts a CPR training class aboard the aircraft carrier USS George Washington (CVN 73). George Washington and its embarked air wing, Carrier Air Wing (CVW) 5, provide a combat-ready force that protects and defends the collective maritime interest of the U.S. and its allies and partners in the Asia-Pacific region. *(Photo by Mass Communication Specialist Petty Officer Second Class Jacob I. Allison)*



Navy Hospital Corpsman 3rd Class Samuel Rios, Fire Control Team 31, Air Naval Gunfire Liaison Company, Command Element, 15th Marine Expeditionary Unit, runs up the well-deck ramp aboard the USS Rushmore, Dec. 29. The 15th MEU is deployed as part of the Peleliu Amphibious Ready Group as a U.S. Central Command theater reserve force, providing support for maritime security operations and theater security cooperation efforts in the U.S. 5th Fleet area of responsibility. *(Photo by Marine Corps Cpl. Timothy R. Childers)*

Lt. Chantel Hurwitz, the ship's nurse, and Hospital Corpsman 1st Class Robert High move a patient in preparation for a medical evacuation from the aircraft carrier USS George H.W. Bush (CVN 77). George H.W. Bush is conducting training and carrier qualifications in the Atlantic Ocean. *(Photo by Mass Communication Specialist 2nd Class Timothy Walter)*

About two dozen Navy Medicine East health care providers traveled down the West African coast to deliver

HUMANITARIAN ASSISTANCE

By Rebecca A. Perron
Naval Medical Center Portsmouth
Public Affairs



Children give a playful salute during one of the Africa Partnership Station stops. (Photos courtesy of Naval Medical Center Portsmouth Public Affairs)

Six Naval Medical Center Portsmouth staff participated in Africa Partnership Station (APS) 2012, and several spoke Nov. 1 about their experiences providing humanitarian assistance for two months to seven West African countries.

About two dozen Navy Medicine East pro-

viders – the NMCP contingent and personnel from naval hospitals in Jacksonville and Pensacola, Fla.; Charleston, S.C.; Rota, Spain; and Naples, Italy – left Rota on board the Military Sealift Command High Speed Vessel Swift, a hybrid catamaran primarily used for fleet support and humanitarian partnership missions. They sailed down the West African



Navy Hospital Corpsman 2nd Class (SW) Edward Lopez takes the vital signs of a patient during Africa Partnership Station.

coast, visiting Liberia, Ghana, Nigeria, Cameroon, Republic of Congo, Benin and Togo, before sailing back to Spain.

The 35-person team also included nine civilian volunteers from the non-governmental organization Project HOPE, who collaborated with APS. The naval and NGO providers trained medical students and local military and civilian health care workers and cared for patients in the host nations.

The visit to each nation lasted five to eight days. The team treated more than 9,000 patients, conducted 13 Medical Civic Action Programs, 13 military-to-military trainings and 10 optometry outreaches.

Nearly half of the patients took advantage of the optometry outreach, and the providers wrote about 2,000 prescriptions. About 120,000 pairs of sunglasses donated by the Lions Club were distributed.

Four Seabees assigned to the group lent their support and led two civil affairs projects, one at an orphanage and another at a school, and were assisted by some of the medical and Swift's personnel.

APS began in 2007, developed by United States Naval Forces Europe-Africa to work with U.S. and international partners to improve maritime safety and security in Africa.

The program builds the skills, expertise and professionalism of African militaries, coast guards and mariners and is delivered in many forms, including ship visits, aircraft visits, training teams and Seabee construction projects. APS activities consist of joint exercises, port visits, hands-on practical courses, professional training and community outreach with

coastal African nations.

"Each contingency has a slightly different mission, but the main medical focus is capability building and mentoring the host nation medical providers, whether military or medical students, nurses or midwives," said Cmdr. Matthew McLean, an NMCP pediatrician. "We matched our specialties with theirs – we had two family practice docs, two pediatricians, two optometrists and an obstetrician – and we worked with them to first find out their knowledge base and train them, and second, to provide acute medical care."

McLean compared the MEDCAP mission component to that of USNS Comfort or USNS Mercy, but on a smaller scale. The Swift mission provided much greater host-nation provider/Navy provider interaction and collaboration. McLean said they learned just as much about caring for tropical diseases with limited resources as the host-nation providers learned from us, and that it was a truly joint experience.

"We were a much smaller contingency than the Comfort or the Mercy, but based on lessons learned from those missions, (we) still kept mostly one patient with one complaint to one provider," McLean said. "However, our size allowed us to be more flexible, so in some locations, patients were able to see multiple providers because the tribal leaders asked us to support them this way. So we adapted to the needs of the communities.

"Another example is how our obstetrician worked with the midwives in Ghana," McLean added. "Capt. Copenhaver worked collaboratively with the midwives of the clinic we were operating out of to see 100 percent of the obstetric pa-



Patients wait to receive care from service members.

tients enrolled to that clinic. She provided important patient care and staff training that directly benefited their specific population.” Additionally, Copenhaver taught midwife skills that could be carried on after the Swift left. This has not usually been done on large ship missions.

Lt. Cmdr. Rommel “Pepe” Flores, NME Operations, Future Operations associate deputy chief of staff, served as the mission’s officer in charge, leading the providers, corpsmen and volunteers from Project HOPE.

“As medical OIC, my job was to oversee day-to-day coordination of security and logistics, translation support and facilitate host nation interactions, but I did that with the help of everyone in the team,” Flores said. “A lot of the focus medically is showing the ‘soft power’ of our Navy, thereby contributing to the overall AFRICOM and Naval Forces Africa mission and vision.”

Some of the training consisted of health promotions and preventive medicine, as well as military-to-military training to improve the African nations’ shipboard readiness. The providers also assisted their host nation counterparts in doing rounds at local hospitals. They shared best practices and ways to stretch limited resources. The team even brought mannequins for realistic hands-on training and simulation.

“One important educational need is to help them learn neonatal resuscitation,” McLean said. “In the Republic of Congo, we worked with four hospitals and had an entire day

of resuscitation education for midwives, pediatricians and general medical officers. In Cameroon, at a single military hospital, we worked with medical students. They do a lot of theory, but don’t have the equipment to do hands-on. So we brought the mannequins in so they could practice their techniques.”

While the doctors spent the mission training their counterparts and seeing patients, the 12 corpsmen also contributed to the mission.

“My job was to medically assist the officers and set up the site,” said Hospital Corpsman 2nd Class Edward Lopez, one of five NMCP corpsmen on the mission. “We put in place the plan to locate and categorize patients and set up fencing to efficiently and safely direct patient flow. I worked with different providers, managed supplies, took vital signs and helped patients get from point A to point B to get treatment. We also worked with our enlisted counterparts at the different sites to help them give proper and accurate treatment.”

According to McLean, the corpsmen were the face and backbone of the mission, spending more time with the patients.

“I tried to learn the language of each nation to communicate with them and tried to keep them happy and entertained while they were waiting,” said Hospital Corpsman 2nd Class Terron LaSalle, another NMCP corpsman. “I helped the medical providers and did a lot of hands-on



Leaving Africa was bittersweet. I loved every part of the mission.



- Navy Hospital Corpsman 2nd Class Edward Lopez

training with them. We taught them Basic Life Support and Tactical Combat Casualty Care course standards. We also came up with ways to speed up patient care and make it more efficient as we went along.”

While LaSalle and Lopez spent the mission in each country ashore, some of the corpsmen worked with medical teams aboard African naval ships.

“Some of the corpsmen did shipboard training, where they trained them on their ships so the environment would be the same,” Lopez said. “They showed them how to take care of patients at sea, including treating steam injuries, placing a spine board and properly using splints. (For carrying a stretcher,) they were taught how to navigate small, confined spaces, go through hatches and deal with the boat rocking while they were on ladderwells and not lose grip.”

The training was well received by the local navies and increased their overall medical readiness.

When the team was not providing medical care, they participated in the Seabee projects.

“The orphanage in Cameroon was a new building and the Seabees were there to help finish the building,” Lopez said. “After they did the sanding, I helped with painting, and they trained me to measure for windows.”

There was also time for a little competition between the U.S. and host nation naval forces.

“We played soccer with them and lost every single game – we did win the volleyball games, though. We laughed together, and we had fun,” LaSalle recounted with a big grin. “I loved the interaction with the people, the liberty calls and exploring the country that is actually pretty beautiful.”

“I have a very different viewpoint of Africa now than before,” LaSalle continued. “They drive the same cars, they have beautiful houses and they are just as intelligent and friendly – they just don’t have the same resources as we do. We did see the poor side as well. From this experience, I came out a different person with a very positive perspective of Africa, appreciating more what I have in my life. I would love to do it all over again if given the chance.”

“Leaving Africa was bittersweet,” Lopez said. “I loved every part of the mission. I would play with the children: laughing, clapping, singing, playing tic-tac-toe, entertaining them. We cracked jokes, laughed, some asked me why I speak funny. Many of them had scars on their faces that is a form of tribal identification. I asked them about the marks, and they asked if I wanted one. I said no, that my uniform is my tribal mark and that my tribe is the Navy.”

Lopez enjoyed the African restaurants and said the food everywhere was amazing.

“The food was great,” LaSalle said in agreement.

“Oh, the food,” they all chimed in with big smiles.

“And the arts and crafts,” LaSalle said, and then pointed to Lopez. “He brought back a lot of stuff.”

Lopez nodded in agreement. The sense among the group was one of camaraderie.

“We didn’t know each other at the beginning, but we became a family at the end,” Flores said. “I was blessed with the finest corpsmen, doctors, Seabees, Swift’s crew and Project HOPE personnel. It was a really good mission. My favorite part was in creating this incredible team. There were a lot of challenges in creating an efficient team focused on the mission, but we were able to set aside rank, egos and just work together and have quite a memorable summer at the same time.”

Flores said they left each location with a positive image of the Navy and of America.

“That to me was the most important part, especially using providers and corpsmen to do that—show how generous and caring Americans truly are,” he said.

In December, Flores begins a new assignment in Naples with NAVAF/NAVEUR/6th Fleet and plan future APS medical missions. He is looking forward to the challenge and continuing the enduring partnerships that they created there.

“Overall, it was a very rewarding and unforgettable experience,” Flores added. “I hope to get the next set of deployers there well prepared, but I would love to go again, especially if it was with the same team.” +



Service members spend time with children during Africa Partnership.

canine care



Story and photo by Heidi Linscott | Naval Medical Clinic Quantico Public Affairs

Brooke R. Hettinger, smiles broadly as she watches Captain Charlie, the clinic's four-legged, half golden retriever and half labrador pet therapy dog enter her office looking for his weekly treat. "He is the highlight of my day," she said. Hettinger is a psychiatric technician for behavioral health at the Naval Health Clinic Quantico. Like many other staff members at the clinic, Hettinger keeps a stash of dog treats, just waiting for Charlie's visit. Hettinger said that Charlie gives her the break she needs from her busy schedule. The minute he walks through the door the atmosphere changes and a feeling of well-being seems to take over everyone.

"I give him treats but he gives so much more in return," said Hettinger.

Since April 2012, Captain Charlie has made a positive impact on patients and staff members throughout the command.

Charlie's journey began when he was six weeks old. He was admitted to the Southeastern Guide Dog School in Palmetto, Fla. After passing the first part of his training, he was transferred to the Paws for Patriots Program to complete his education as a military guide dog. Ten months into the program, he was disqualified. "He passed everything until he was spooked by the sound of heavy foot traffic behind him," said Petty Officer 2nd Class Lisa A. Clark, an administrative clerk and Charlie's handler at the clinic.

In January 2012, Charlie's sponsors, Julie and Barbara Baxter and Paul Dresser from Williamsburg, Va., signed him up for the People Animals Love (PAL) organization headquartered in Washington, D.C. PAL, a non-profit organization, was founded in 1982. The program was created to provide animal assisted therapy to wounded, ill and injured military service members, veterans and their families.

In February 2004, the National Naval Medical Center, now Walter Reed National Military Medical Center in Bethesda, Md., was the first military hospital in the National Capital area to adopt the PAL program. Capt. Mary E. Neill, the former commanding officer for NHCQ, said she was inspired by Bethesda's program and wanted the clinic to be the first outpatient treatment facility to pilot the program. In April 2012, her vision became a reality.

Charlie, now 2-years old, works at the clinic with Clark three times a week. "It is a rewarding experience to be Charlie's handler," said Clark, who takes care of Charlie during and after working hours. Clark says that as soon as she heard the clinic was going to adopt Charlie, she knew she wanted to be his handler. She was educated by Charlie's previous trainer and then earned her handler's certification through an online course.

Clark said that sometimes it is difficult to perform her regular administrative duties and have time for Charlie.

"I am thankful that I have been able to train two other handlers," said Clark. "With their help, it all works out."

When Charlie is working with her, he is in charge, said Clark. He takes the lead, making all the decisions regarding which areas he wants to visit in the clinic. She never knows where they will end up visiting first.

One place Charlie always makes sure he visits is the Behavioral Health Clinic. "He seems to know he is needed there the most", said Hettinger. Hettinger studied the equine program in college and learned that horses have been successful in helping patients with autism. "It is a proven fact that pets add contact comfort and speed up the healing process to individuals and families that have been ill or injured," said Hettinger. This is what Charlie's job is





Charlie, a therapy dog at Naval Medical Clinic Quantico, Va., shakes hands with Lt. Ronald Lorenzo, Medical Records department supervisor.

all about. Many of the patients who are seen in behavioral health have histories of wartime injuries or trauma to include post traumatic stress syndrome. "Charlie is the best therapy for their injuries," said Hettinger. "It seems like he can sense when someone is stressed or having a hard day. Those are the ones he focuses his attention on."

Charlie also makes sure he visits the pharmacy, pediatrics and the family practice clinics during his tour of duty. "It's amazing to watch how he affects everyone," said Clark. "He is gentle and welcoming to children and older patients who visit the clinic."

When Charlie walks up to a patient, they will stop what they are doing,

smile and immediately lean over and pet him or shake his paw.

Clark and Charlie also visit the Wounded Warrior Regiment and attend family days, health fairs and other events around the base. "Charlie is very popular," said Clark.

During his off time, Charlie enjoys running, a good game of fetch and peanut butter. "He's just like any other dog", said Clark. "He likes to have fun too."

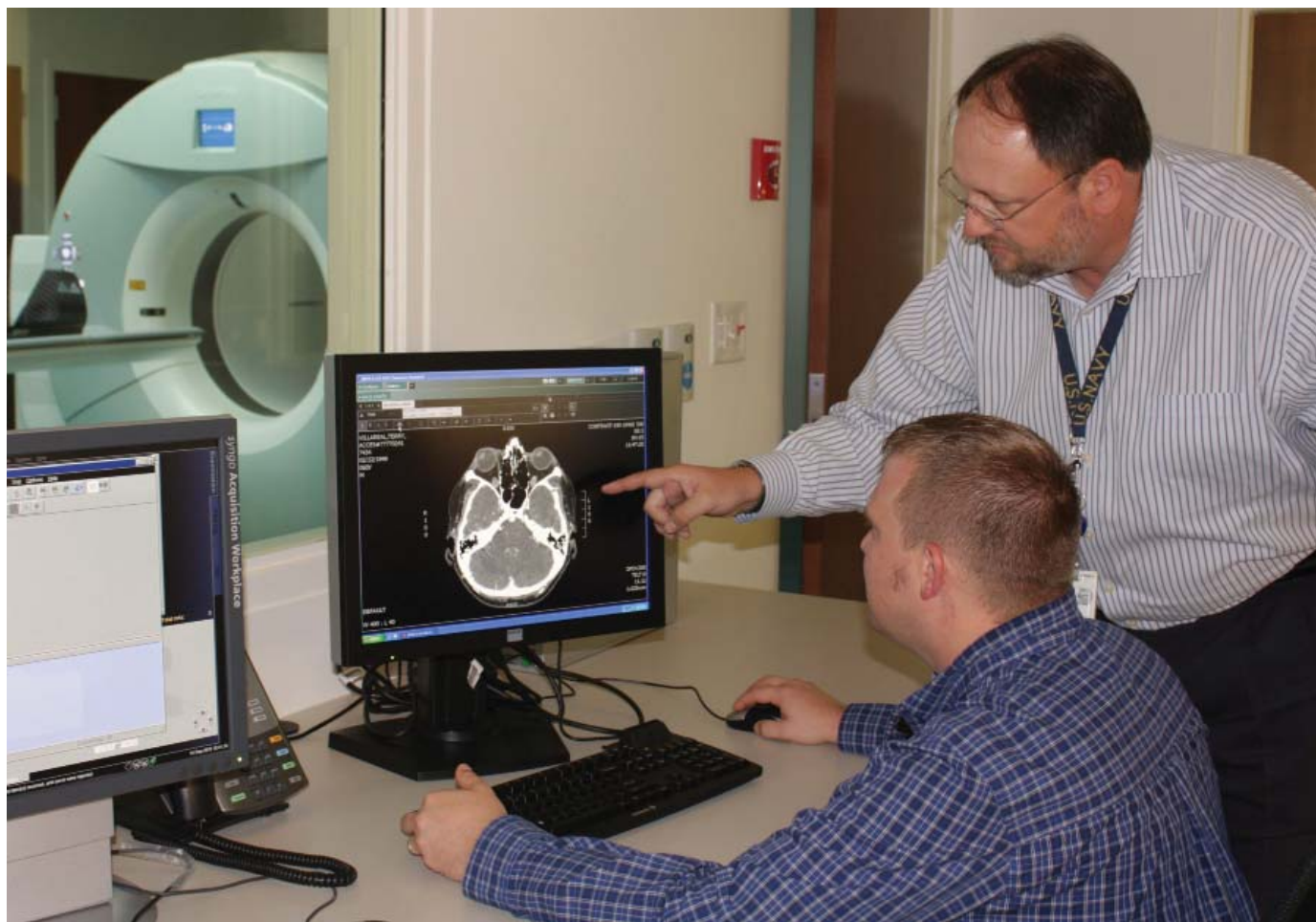
When Clark transfers next year, Charlie will go with her. "We are bound together forever, and I am sure that he will make a positive difference wherever he goes," said Clark. Until then, Captain Charlie, the clinic's four-legged therapist will be here to lend a paw to wherever and whenever he is needed. +



DIGITAL IMAGING

Navy Medicine Promotes Digital Imaging Information with PACS

By Sheila A. Gorman | Naval Medical Logistics Command Public Affairs



Naval Medical Logistics Command Imaging Informatics Division Chief Edwin “Ed” Doorn (right) participates in government acceptance testing protocol of a Picture and Archive Communication System (PACS). Acceptance testing determines whether a PACS is ready for clinical use and is the final sign off from the government. (Photo by Sheila Gorman, Naval Medical Logistics Command Public Affairs)

Located within Naval Medical Logistics Command (NMLC) at Fort Detrick, Md., the Navy Medicine Picture Archiving and Communication System, or PACS, is a diagnostic medical image management system for all radiology studies acquired at Military Treatment Facilities (MTFs) around the world. It is a combination of hardware and software dedicated to short-and long-term storage, retrieval, distribution and presentation of images garnered from multiple source modalities

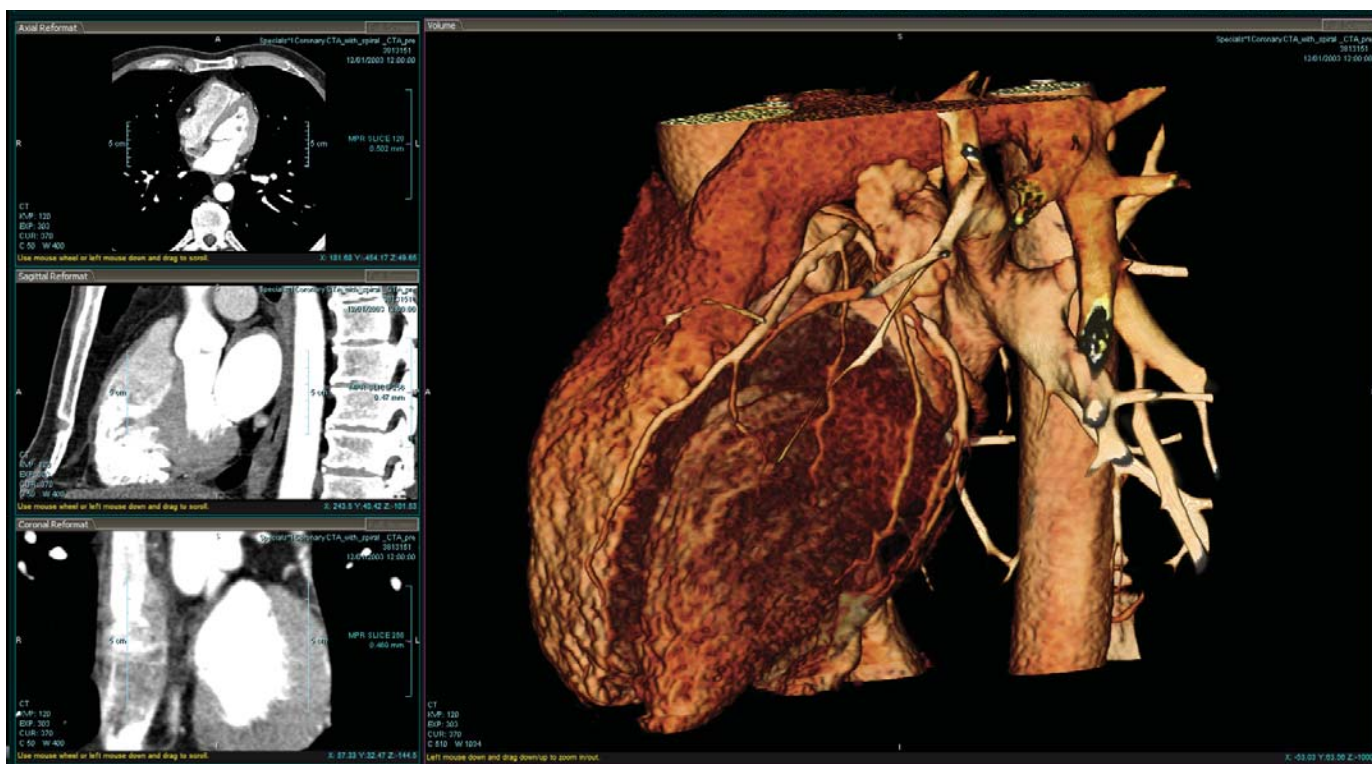
such as ultrasound, magnetic resonance, positron emission tomography, computer tomography and mammography.

In 1996, an economic analysis of military radiology was commissioned, with the specific task of laying out a plan for the conversion from film-based analog imaging to digital. Recommendations generated from the analysis led to the development and solicitation of the Defense Supply Center Philadelphia's Digital Imaging Network - PACS contract. Along with a contract vehicle from which to buy commercial-off-the-shelf PACS products, the analysis group

recommended the creation of the Joint Imaging Technology Program Office (JITPO). The JITPO operated at Fort Detrick from 1998 until 2000, when responsibility for Navy PACS moved to NMLC.

Comprising a division chief, two information technology specialists and three project managers, the mission of the PACS team since 2000 has focused primarily on deployment of PACS to all Navy MTFs, including both Navy hospital ships.

According to Imaging Informatics Division Chief Edwin “Ed” Doorn, this



A three-dimensional reconstruction of the heart depicted on a Picture Archive and Communication System (PACS) workstation. PACS software allows for multi-planar reformatting slices to create the image. (Image courtesy of Naval Medical Logistics Command Public Affairs)

task is now complete and the focus of the team is shifting.

“The new focus for our team is to incorporate all Navy PACS images into a single archive. That single Navy archive would be incorporated into one federated clinical archive in conjunction with our Army counterparts. This means that any military beneficiary that receives a diagnostic study at any Navy MTF will have their images accessible through a single search feature from any PACS at an Army or Navy MTF. The ultimate plan is to include the Air Force as well as the U.S. Department of Veterans Affairs,” said Doorn.

“The process is smoother and more efficient. The risk of losing images is alleviated, storage space is reduced, retrieval time is reduced, and images are available for consultations, research and referrals via a network,” continued Doorn.

Doorn anticipates the federated archive will come on-line in 2013.

While the primary focus is on attaining one Navy archive and incorporation into one federated archive, the PACS team is also in sustainment mode in conjunction with Navy PACS world-

wide.

“Because a PACS is 95 percent information technology equipment such as workstations, servers and software, there is always something new on the horizon that we try and take advantage of, mostly in the form of process improvement,” said Doorn.

Doorn said that originally, Navy Medicine integrated PACS with radiology. But now there are other requirements for image management systems and the Navy is beginning to capture those.

“Although radiology is the biggest consumer of medical imaging, there are other ‘ologies’ out there that can be incorporated into a common archive. Cardiology, ophthalmology, and obstetrics and gynecology are a few where data can be shared across specialties. When the team goes to complete a PACS refresh or replacement, we’ve now begun to encompass the cardiology and radiology departments into a common solution in terms of image management systems,” Doorn explained.

While incorporating other diagnostic images is now part of the team’s agenda, Doorn said other improvements are also

in the works, such as Critical Test Results Management.

Critical Test Results Management (CTRM) is a system that utilizes popular communications devices to quickly transmit critical test results when delayed communication could have a negative impact on the patient’s treatment outcome. Communication devices can include smart phones, two-way paging, secure e-mail, secure text, images, annotations and voice to a variety of cross platforms such as workstations, laptops, tablets and other wireless devices.

By utilizing popular communication technology, CTRM provides an audit trail of messages, promotes accountability, provides message receipt confirmations, and increases patient safety and satisfaction, according to websites promoting CTRM software management.

Completing a Navy PACS archive, achieving one federated clinical archive, incorporating image management systems from other departments, and utilizing CTRM are a few examples of how Navy Medicine works every day to bring exceptional medical expertise and cutting edge technology to more than one million eligible beneficiaries worldwide. +

SAILORS SAVE LIFE AT SAN DIEGO ZOO

By Mass Communication Specialist 2nd Class John Philip Wagner, Jr. | Naval Medical Center San Diego Public Affairs



Hospital Corpsman 3rd Class Stephanie Moor (left) and Ensign Janean Wujek (right) reunite at Naval Medical Center San Diego after successfully providing life-saving measures during a visit to the San Diego Zoo.

Nov. 23 began like any other day for two Sailors assigned to Naval Medical Center San Diego (NMC-SD). Ensign Janean Wujek and Hospital Corpsman 3rd Class Stephanie Moor were spending their liberty with loved ones at the San Diego Zoo. In a matter of moments, however, what started out as a leisure activity quickly turned into a life-saving situation when the two Sailors' training was called into action.

"While walking, I noticed a large group of people frantically looking down at something on the floor. As I approached I noticed a man approximately 65 years of age lying lifelessly on the ground. I informed [the bystanders]

that I was a corpsman from the Cardiac Rehab Clinic at NMCSD and asked if they wanted help," said Moor.

Wujek, a registered nurse assigned to NMCSD's Mental Health department, was with her family on the way to see the hippopotamus exhibit when she saw an alarming sight.

"There was a woman saying 'stop, don't go over there, there is a man getting CPR [Cardio Pulmonary Resuscitation]'. My mind clicked into 'Nurse Mode' and I immediately ran over, announcing that I was a nurse and quickly assessed the situation," she said. "When I arrived, the victim was not breathing; he was blue as a

blueberry and had a thready pulse, so we continued with chest compressions and rescue breathing."

The patient was later identified as Navy veteran James Thompson, who served as an Interior Communications Electrician in the Navy from October 1965 until November 1969 on USS Coral Sea (CV 43) and USS Kearsarge (CV 33), and visits family in San Diego on a regular basis.

His friends were thankful Moor and Wujek were able to offer assistance.

"[Thompson] was a walking time bomb and he was lucky that it happened when he had expert people to help him," said Debbie Andreen, a family friend.

Thompson shared his thoughts on the situation.

"I'm at a loss for words. Their dedication to duty - it's awesome. Coming to the aid of a complete stranger; I would just like to say thank you for their help," said Thompson.

Thompson spent eight days at Scripps Mercy Hospital, where he had a pacemaker defibrillator implanted. Following his surgery, Thompson was released and is currently on his way back to his home in Clearbrook, Minn.

San Diego Zoo representative Christina Simmons expressed her gratitude for Moor and Wujek's quick responses.

"It is always an honor to have service members visit. We are very grateful the two that were at the zoo were able to be there in this family's time of need."

The two NMCSD staff members received a standing ovation during December's Director, Department Head and Senior Enlisted Leaders meeting.

"I am incredibly proud of Ensign Wujek and Hospital Corpsman 3rd Class Moor. They represent what Navy Medicine is all about: saving lives and making a difference for those who need our help," said Rear Adm. C. Forrest Faison III, commander, Naval Medical Center San Diego and Navy Medicine West. +



A Navy corpsman with Weapons Company, 2nd Medical Battalion, 2nd Marine Division performs combat first aid on a simulated casualty during the 2nd Marine Division Tactical Combat Casualty Care course. This course gives Navy corpsmen the skills necessary to treat wounded Marines.

Training to Preserve Lives

Story and photo by Marine Corps Lance Cpl. Mel Johnson | 2nd Marine Division

Cries for help echoed through the warehouse as the corpsmen moved from one casualty to the next as quickly as they could.

"Hurry up doc, you got people dying over here," shouted an instructor as the corpsman frantically gathered his supplies and moved to help the next casualty.

After a quick assessment of the simulated casualty, the corpsman rushed to treat the other patients.

Despite the thick layer of fog, ambient noise of gunfire, helicopters and victims, the corpsmen successfully completed the final part of their tactical combat casualty care course.

The Tactical Combat Casualty Care course taught

corpsmen the combat first aid needed when tending to wounded Marines in a deployed environment.

"TCCC is designed to sharpen and further advance the skills of junior corpsmen that have never been in a combat situation," said Petty Officer 3rd Class Christopher R. Trimmer, a TCCC instructor with Weapons Company, 3rd Battalion, 2nd Marine Regiment, 2nd Marine Division.

During this week-long course, sailors with various companies from 2nd Medical Battalion, 2nd Marine Division learned how to keep casualties alive while waiting for transport to medical care.

"We start with four days of didactic (classroom instruction) and practical application in the classroom," said Trimmer. "Then we end the

class with a training scenario which includes a mass casualty extraction."

All corpsmen learn basic skills in field med, but TCCC goes more in depth, said Trimmer.

"We try to create the best stress environment for the corpsmen by focusing on the casualty side of it and making it as real as possible," said Trimmer. "It's really a class taught for corpsmen by corpsmen."

Students in the class said that taking TCCC has allowed them to further expand their knowledge of field medicine.

"The training is a great opportunity for us to increase our skills, both as new and experienced corpsmen," said Petty Officer 3rd Class David Smith, a corpsman with Weapons Company, 2nd Medical Battalion, 2nd Ma-

rine Division.

The course is designed to teach corpsmen to respond quickly, accurately and diagnose the casualty, he added.

"The course taught us the guidelines of combat care but also provided the skills to think independently when treating a casualty," said Smith a native of Sacramento, Ca.

Though the division-level TCCC course aboard Marine Corps Base Camp Lejeune is still relatively new compared to those at Camp Pendleton and on Okinawa, Japan the instructors work hard to ensure the sailors fully understand the importance of the course.

"This is what being a corpsman is all about, not just giving shots and taking temperatures," said Smith. "This is what really matters because it's going to save lives." ♦

MEDICAL OFFICER OF THE MARINE

Story and photo by Marine Corps Lance Cpl. Alyssa Hoffacker | III Marine Expeditionary Force / Marine Corps Installations Pacific

The medical officer of the Marine Corps, Rear Adm. Michael H. Anderson, and deputy medical officer of the Marine Corps, Rear Adm. Charles Harr, visited medical personnel and conducted briefings Jan.

14-17 throughout Okinawa.

Anderson and Harr toured medical clinics and met with service members to see the work III Marine Expeditionary Force does on a daily basis. Navy Capt. Russell C. Gilbert, the Marine Corps Forces Pacific surgeon, and Navy Capt. John P. LaBanc, the III MEF surgeon, accompanied the admirals during their visit.

The distinguished guests visited 3rd Medical Battalion's simulated trauma and advanced training center. The battalion is part of Combat Logistics Regiment 35, 3rd Marine Logistics Group, III MEF.

The center is III MEF's first medical predeployment training facility of its kind, according to Lt. Eva Reed, the officer in charge of the center, which was designed to provide corpsmen realistic combat care training. Corpsmen with combat experience were handpicked

to serve as instructors at the center.

"This is going to be immensely beneficial to corpsmen and providers because it's an integration of our experience from combat," said Petty Officer 3rd Class Brendan D. Tran, an instructor at the center and corpsman with the battalion. "This visit is great because it gives (Rear Adm. Anderson the chance) to observe the effective training we conduct here."

Anderson and Harr also briefed medical personnel and sailors throughout the island

Navy Cmdr. Joe T. Patterson, right, explains how 3rd Medical Battalion is aiding III Marine Expeditionary Force with its mission to, from left, Rear Adm. Michael H. Anderson, Rear Adm. Charles Harr, and Navy Capt. John P. LaBanc at Camp Foster.



MARINE CORPS VISITS OKINAWA

during their visit.

"You all do a phenomenal job," said Anderson. "I'm here to recognize the good work you're doing. You have all earned your reputations due to the work that you do every day."

Anderson spoke about the crucial role of corpsmen for III MEF and throughout the Asia-Pacific region.

"I often talk about the good things that you're doing to (ensure) you have the resources (needed) to continue to be the tip of spear, deliver care to Marines and sailors, and be part of the fighting machine that's known

as America's 911 force in readiness," said Anderson. "The commandant talks on a regular basis about the expeditionary nature of the Marine Corps. As I stand here and look out at this crowd, I know he's talking about you, III MEF, being prepared to go execute any mission that may be tasked."

Harr spoke about how caring for service members is vital to more than just the Marine Corps'

and Navy's missions.

"What's important is my son. These Marines and sailors you look after are someone's sons and daughters," Harr continued. "You all have been given the gift of looking after them. Not only can you fight and defend yourself, but you can restore life – you can bring it back. We do it better than anyone else. You guys can provide care on the ground, put them on a helicopter, whether it is in the dark or in the cold. That's really important."

Anderson and Harr agreed that the work of medical personnel is necessary for III MEF to accomplish its mission.

"What you do on a daily basis is appreciated and recognized at every level of our military and government," said Anderson. "When the president says 'turn your eyes toward the Pacific,' it means your countrymen are turning their eyes to you and what you do in an extremely busy (environment) through exercises and partnership building.

"Keep up the good work. I thank you for what you do. We appreciate the sacrifices that you make wearing your uniform, whether it's blue or green." +





WAGING WAR ON WEST NILE

By Lt. Jen Wright | Navy Entomology Center of Excellence Public Affairs

Tommy Stewart, Aerial Inspector at Lee County, Fla. Mosquito Control District, uses a helicopter to reach remote areas and check for mosquito larvae. (Photo by Lt. j.g. Mathew Yans, Navy Entomology Center of Excellence)

The United States is experiencing the greatest West Nile Virus (WNV) outbreak since its initial discovery in New York during the summer of 1999. A total of 3,142 WNV cases have been reported this year with 134 cases resulting in death according to the Center for Disease Control (CDC) as of Sept. 18, 2012. Texas has been the hardest hit state with nearly half of all reported cases and deaths.

The WNV symptoms are similar to the flu and often include high fever, headache, neck stiffness, tremors and muscle weakness. Many individuals are often infected with WNV and never know it. However, approximately one of 150 people with WNV experience severe symptoms to include neurological disorders, convulsions, loss of vision and even death.

Effective methods to reduce exposure to mosquitoes carrying WNV include application of 25-30% DEET on exposed skin and wearing permethrin-

treated clothing, especially at dusk when mosquitoes are most active. Be sure to wear long sleeved light colored shirts and pants whenever outdoors or in places where mosquitoes may be present. Avoid mosquitoes as much as possible and ensure window and door screens are in good repair. In addition, homeowners should make sure areas around their homes are free of standing water, and eliminate or cover containers that often serve as mosquito breeding sites. This is especially important during rainy periods since many disease vectoring mosquitoes prefer to breed in small containers near human dwellings.

The Navy Entomology Center of Excellence (NECE), located in Jacksonville, Fla., has subject matter experts that provide surveillance and mosquito control and other control strategies against other blood-feeding insects that transmit human diseases to include WNV. This center of mosquito experts provide vector surveillance and control training to

civilian and DoD technicians who are responsible for ensuring disease vectors are monitored at U.S. DoD installations throughout the world.

Since 1999, the Navy and DoD partners have conducted a multidisciplinary WNV training, as well as surveillance and response efforts to protect force health and readiness. Centrally developed guidelines have been designed and activities implemented to characterize WNV exposure and transmission risk and to prevent WNV infection in DoD personnel. Activities are coordinated through active communication and, where needed, task sharing. All surveillance findings are shared with DoD commands as well as public health officials.

"Our entomologists are consistently monitoring the distribution of human disease transmitted by blood feeding insects and other arthropods. As with the case of WNV, we provide recommendations for prevention and control



to Navy and Marine Corps facilities in the affected areas and if necessary, offer on-site assistance," said Cmdr. Eric Hoffman, officer in charge at NECE. "Our goal is to augment the capability that already exists at each site, providing the necessary level of expertise to limit adverse effects on personnel."

Recently, NECE sent two entomologists and two Preventative Medicine Technicians to Lee County Mosquito Control District (LCMCD), to learn cutting edge mosquito and disease surveillance techniques from the country's most hi-tech control district. While there, NECE personnel completed aerial and ground mosquito larvae surveillance and adulticide application utilizing helicopters, airplanes, ditch trucks, airboats and boats as part of a comprehensive mosquito control program.

"The district has eleven helicopters including six Bell 206 Jet Rangers, three Bell UH-1 Hueys, and two Bell 407 helicopters. Also, we have two turbine



conversion and two radial engine DC-3 airplanes and a Beachcraft King Air 90 for aerial spraying for adult mosquitoes," said T. Wayne Gale, Executive Director of LCMCD. "We also have a fleet of trucks performing larval and adult mosquito control operations. Over the past 50 years we have been at the forefront of researching and developing many of the mosquito control technologies and methods used over the world today."

"We have been very fortunate to

ABOVE - Lt. Jen Wright takes a blood sample from a sentinel chicken as part of a comprehensive WNV virus surveillance program at Lee County Mosquito Control. (Photo by Lt. j.g. Mathew Yans, Navy Entomology Center of Excellence)

LEFT - Petty Officer 1st Class Jason Francona drives an air boat as part of an Integrated Pest Management Program with Keith Andreu, Lee County Mosquito Control District. (Photo by Lt. Jen Wright, Navy Entomology Center of Excellence Public Affairs)

take advantage of training opportunities with our civilian colleagues, such as at the LCMCD. Over the course of just a week, our entomologists and preventive medicine technicians are not only able to practice skills learned in the classroom or through their deployment experiences, but learn new ideas or techniques in an operational setting, preparing us to deliver the best possible support to our customers," said Hoffman. +

THE JOINT FIRST AID KIT

By Glenn G. Buni and John Raniowski | Navy Medicine's Advanced Medical Development Program Office

U.S. Navy personnel broke ground this year as operational test users for the Department of Defense's Joint First Aid Kit (JFAK) project. Sponsored by Navy Medicine's Advanced Medical Development (AMD) Program Office, eight personnel from the Navy Expeditionary Combat Command (NECC) were selected to provide input and subject matter expertise during the JFAK's Test & Evaluation phase at the U.S. Air Force Medical Evaluation Support Activity (AFMESA) in Fort Detrick, Md.

Bringing in a diverse background of Navy Enlisted Classifications, the non-medical NECC team was randomly selected to provide an operationally-realistic perspective on the use and placement of the proposed joint-service device. This proactive effort was lauded by Rear Adm. Bruce A. Doll, M2 deputy chief of Navy Medicine Research and Development Command who is also the Flag Lead for Navy Medicine Strategy Map on Jointness. Rear Adm. Doll stated, "If you want a favorable wind, chart a course" thereby stressing the fact that Navy Medicine must leverage joint initiatives and lead the way to work toward improved interoperability.

Prior to the early 1990s, the average U.S. Service member carried little more than a bandage for the treatment of injuries. With the advent of Improvised Explosive Devices (IEDs) in Iraq and Afghanistan, it was quickly realized that warfighters required immediate access to first-aid materiel that could address severe polytrauma. Soon thereafter, the different Services began fielding their own versions of first-aid gear which eventually produced the Service-specific Individual/Improved First Aid Kits (IFAKs).

The IFAK is issued to mitigate life-



Team members from the Navy Expeditionary Combat Command point out user concerns in differences of the Individual First Aid Kits (IFAK) from each branch of service. All DoD-issued IFAKs were brought in for analysis and comparison toward development of the Joint First Aid Kit. (Photos by Glenn G. Buni)

threatening battlefield injuries. It is designed for self-aid or the treatment of others to provide initial lifesaving measures at the point of injury to preserve life until a casualty reaches definitive medical care. Throughout the years substantial improvements in the IFAK have occurred, but the first-aid bags remained an inconsistent mix of medical components. This lack of a concerted effort in individual life-saving equipment led to inter-service variability which poses safety, training, logistical, and financial issues to the DoD. "During joint combat missions, unfamiliarity with another servicemember's IFAK can delay and/or degrade the care provided to a casualty. We must avoid that; the stakes are too high. Any hesitation, any indecision by the first responder could mean the difference between life and death for our wounded warfighters" according to Cmdr. Tyson Brunstetter, chief of Joint Medical Test & Evaluation, Defense Medical Material Program Office (DMMPO).

Wide IFAK inconsistencies required combatants, medics, corpsmen and para-rescuemen to train on a multitude of components rather than become experts with just one or two first-aid kit devices. In addition, DoD Medical Logistics Agencies each maintain supply chains and depots for their unique IFAKs, rather than streamline through cross-service collaborations to realize the savings associated with large-scale purchases and reduced logistics. DMMPO addressed the matter by working with all-Services to standardize the IFAK components and align them with Committee on Tactical Combat Casualty Care (CoTCCC) recommendations. Finally in February 2012, efforts began to develop the first truly standardized Joint-Service First Aid Kit.

To accomplish this, a JFAK Integrated Product Team (IPT) was formed, with DMMPO as its mediator and overall coordinator. The IPT consists of subject-matter experts from each Service including voting members from the

Army Medical Department Directorate of Combat Doctrine and Development (DCDD), Marine Corps Systems Command, Office of the Air Force Surgeon General, and the Naval Expeditionary Combat Command.

"Today's battlefield survival rate is over 90% which is a significant improvement compare to 82% in Vietnam and 74% in Korea. One of the goals of this initiative is to standardize training and improve Servicemembers' familiarity with the components of each Service's JFAK bag. We believe that the new JFAK bag will help increase the survival rate of our warfighters in the battlefield," said U.S. Air Force Capt. George Diaz, deputy chief, Joint Medical Test and Evaluation (JMT&E) at DMMPO.

AFMESA, in cooperation with the US Army's Medical Department (AMEDD), led the JFAK's joint operational testing in August 2012. "An integrated research for development of a joint-service first-aid kit is long overdue," said Capt. Elizabeth Montcalm-Smith, program manager of the Navy's Advanced Medical Development Office. "Certainly, it's the least we can provide every servicemember that is sent out into harm's way."

"Operational testing of medical equipment prior to fielding is vital; at the end of the day, every warfighter, regardless of Service affiliation, should have the very best first aid kit available. Every kit works, so it then comes to the questions of effectiveness and suit-

"NEXT TO A WEAPON, THIS IS PERHAPS THE MOST IMPORTANT PIECE OF EQUIPMENT A WARFIGHTER CARRIES."

- Sgt. 1st Class Dale A. Scherberger, AMEDD Center & Schools Test Board in San Antonio

ability: the user's preference, given their missions and environments," said Ms. Christine Wasner, program analyst of JMT&E at DMMPO. "That's what tells us which kit will suit the warfighter best to treat him or herself, as well as their fellow warriors."

Development of the JFAK has led to novel decisions, including the placement of tourniquets in easy-to-access external cases and the establishment of minimum DoD standards for first-aid supplies. Core components of the kit will consist of universal medical equipment such as tourniquets, hemostatic agent, nasopharyngeal airway (NPA), chest seal, needle decompression device, pressure bandage, rigid eye shield, compressed gauze, tape, safety hook/scissors, gloves, pen/marker, and TCCC Card.

The two tourniquet pouches will each carry one tourniquet, and will

have the flexibility to attach to the user's load-bearing equipment or the JFAK bag. All-in-all, most prototype JFAK bags have the flexibility to attach to the various body armor and vests that troops use to secure equipment (i.e., canteens, ammo pouches, etc.).

"Next to a weapon, this is perhaps the most important piece of equipment a Warfighter carries," said Sgt. 1st Class Dale A. Scherberger of the AMEDD Center & Schools Test Board in San Antonio, Texas. "It is extremely important that all of our Services get this right because the first responder is the crucial link in the chain of survival of the Wounded Warrior."

The kit will be based on CoTCCC recommendations and will provide elevated, uniform first-aid capabilities to the Joint Warfighter. Mission-essential functions include: (1) provide materiel for the treatment of life threatening external hemorrhage, airway compromise, breathing compromise, and other combat injuries; (2) provide documentation of patient care; and (3) integrate with all-Service personal protective equipment (PPE).

"The JFAK will induce uniformity into the DoD medical packing list regardless if someone is treating a Soldier, Sailor, Airmen or Marine," said Sgt. 1st Class Scherberger. "The bottom line is that during care under fire, I should know that whenever I have to look inside another Warfighter's first-aid kit, all of its contents are the same as mine."

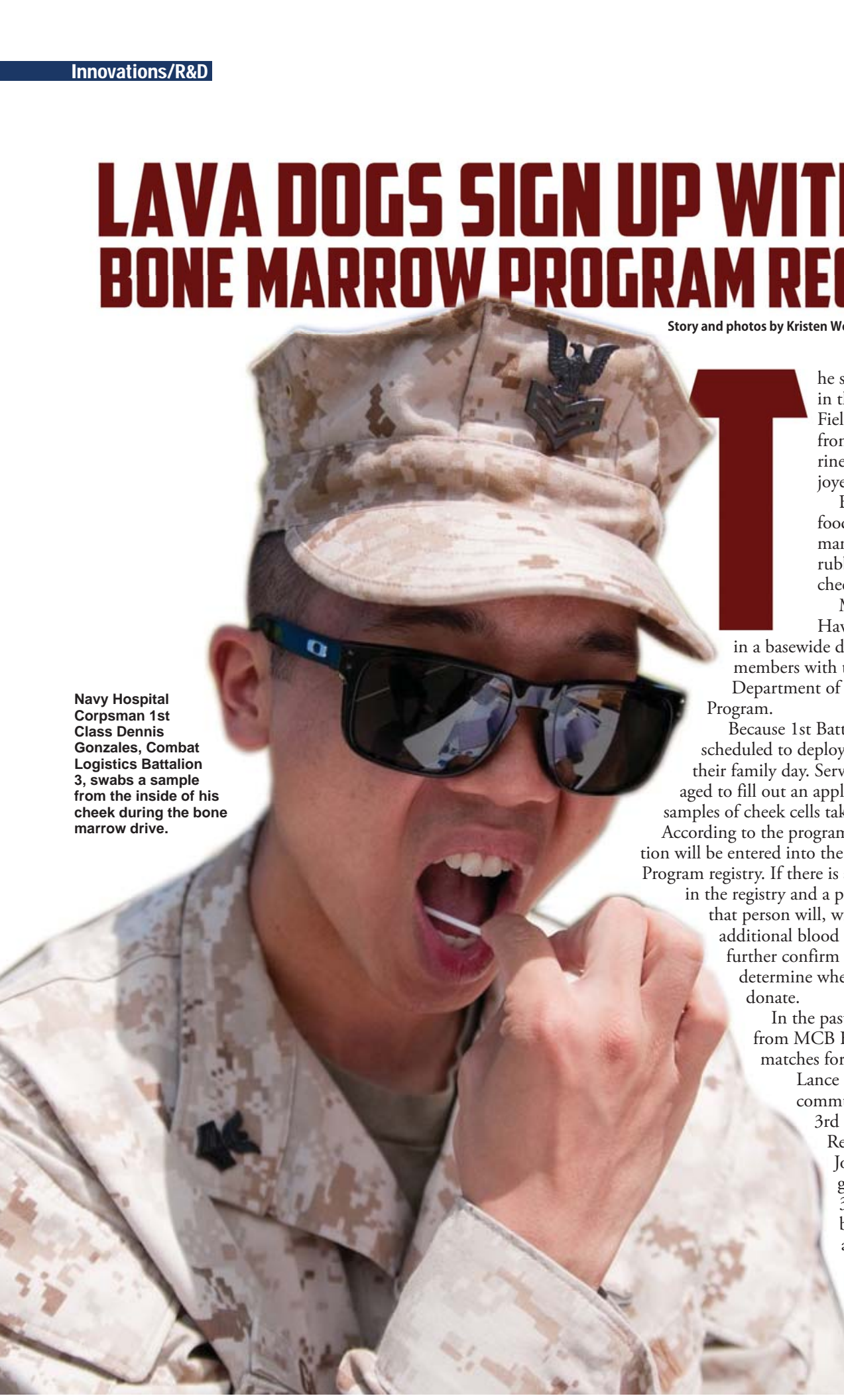
The new JFAK is planned to be standardized across all-Services (except for camouflage color/patterns), and a final design selection is expected to occur in FY13. +



Pictured is the Joint First Aid Kit currently in use by the U.S. Navy. It uses a "clamshell" design that zips open flat. There are several elastic straps to hold the various supplies in place where the pouch is set up to either connect to a vest or be secured to the leg and belt. This kit is designed with one external pocket and one internal pocket.

LAVA DOGS SIGN UP WITH DOD BONE MARROW PROGRAM REGISTRY

Story and photos by Kristen Wong | Marine Corps Base Hawaii



Navy Hospital Corpsman 1st Class Dennis Gonzales, Combat Logistics Battalion 3, swabs a sample from the inside of his cheek during the bone marrow drive.

The smell of barbeque wafted in the air just behind Pollock Field as Marines and Sailors from 1st Battalion, 3rd Marine Regiment relaxed and enjoyed their Friday afternoon.

But along with games, food and general chit-chat, many service members were rubbing the inside of their cheek with a cotton swab.

Marine Corps Base (MCB) Hawaii was participating in a basewide drive to register service members with the C.W. Bill Young Department of Defense Marrow Donor Program.

Because 1st Battalion, 3rd Marines is scheduled to deploy, a drive was held during their family day. Service members were encouraged to fill out an application and provide four samples of cheek cells taken with a cotton swab.

According to the program website, the information will be entered into the National Marrow Donor Program registry. If there is a match between someone in the registry and a patient who needs marrow, that person will, with their consent, undergo additional blood and health testing to further confirm a definite match and then determine whether that person is able to donate.

In the past two years, two Marines from MCB Hawaii were confirmed as matches for patients.

Lance Cpl. Brantley Smith, a communications technician with 3rd Battalion, 3rd Marine Regiment, and Lance Cpl. Joshua D. Epps, a machine gunner with 3rd Battalion, 3rd Marine Regiment, both underwent surgery and donated their marrow.



Lance Cpl. Kip Boker, radio technician, Headquarters and Service Company, 1st Battalion, 3rd Marine regiment, stands while Cpl. Jacob Echeverri, radio operator, Headquarters and Service Company, 1st Battalion, 3rd Marines, collects a swab sample.

“Our mission is to get as much DoD [participants who] can help out families in need,” said Chief Hospital Corpsman Arvin Salas, 21st Dental Company. “Every 300 that register, one gets called. The more people we can help the better.”

Salas said a bone marrow transplant can raise a patient’s chances of living from zero to 80 percent.

“It can happen to anybody,” said Petty Officer 1st Class Dennis Gonzales of being chosen to donate. “It’s a one in 300 chance. You can always be that one.

Who’s to say it won’t be my kid 10 years from now [who needs marrow].”

Gonzales added that service members are “prime donors,” as they are already required to be physically fit to serve in the military.

“Everyone should have a second chance at life,” said Pfc. Tommy Arko, a mortarman with Weapons Company, 1st Battalion, 3rd Marines. Arko was one of many service members filling out applications and giving samples.+

NMRC RESEARCHER PART OF JOINT COMBAT CASUALTY RESEARCH TEAM

By Cmdr. Cindy Tamminga
Naval Medical Research Center



Back, from left: Cmdr. Cindy Tamminga, Naval Medical Research Center; Lt. Kristina Carter, Naval Environmental and Preventive Medicine Unit 5; Lt. Cmdr. Octavian Adam, Naval Medical Center Portsmouth; Maj. Brandon Tourtillott, Uniformed Services University of the Health Sciences; Lt. Col. Susan Dukes, U.S. Air Force School of Aerospace Medicine. Front, from left: Lt. Col. Bradford Whitcomb, Tripler Army Medical Center; Maj. Devin Bryant, Walter Reed Army Institute of Research; Sgt. Shanelle McNair, U.S. Army Institute of Surgical Research; Lt. Col. Teresa Brininger, Schofield Barracks Health Clinic. (Photo courtesy of the Joint Combat Casualty Team)

The Joint Combat Casualty Research Team (JC2RT) is a U.S. Central Command (USCENTCOM) directed, forward deployed unit of military research scientists and clinicians tasked with overseeing, coordinating, facilitating and conducting combat-relevant research in a deployed environment.

The first team was deployed during combat operations in Iraq as the Deployed Combat Casualty Research Team (DC2RT) in mid-2005. Since then, 13 teams have deployed, with each team tour spanning six months.

Over time, the composition of the team expanded to involve all three services, and in 2010, as the operations tempo decreased in Iraq, the team transitioned to Afghanistan. Members of the JC2RT are embedded with medical assets throughout Afghanistan.

The conduct of research in a combat environment must meet the same human subjects protection regulatory requirements as research conducted within the continental United States. The first Department of Defense

Assurance of Compliance and Human Research Protection Plan involving a combatant command was approved and established in 2005. In 2010, this was expanded and updated to include research conducted in Iraq, Afghanistan and Kuwait. All in-theater research protocols undergo an approval process that includes scientific review conducted by researchers at the Institute of Surgical Research and ethical review conducted by the U.S. Army Medical Research and Material Command Institutional Review Board. Each protocol must also meet criteria specific for the deployed combat environment. In particular, the proposed research must be highly relevant to military medicine, protect all human research subjects, not hinder ongoing combat operations or health services support, be feasible to conduct in theater, and be unique to the combat environment.

Research priorities and processes are dictated by USCENTCOM. Current research efforts can be divided into four focus areas: prehospital and en route care; hemorrhage and acute care;

traumatic brain injury; and prevention, resilience and recovery. At this time, twenty research protocols are currently enrolling volunteers and nineteen projects are in the development phase. With the anticipated drawdown in troops, the research window of opportunity is rapidly closing. For this reason, JC2RT Team 13 has prioritized enrollment and conduct of currently approved protocols as well as the judicious and expedient processing of new protocols.

History has shown that medical advances are accelerated during war. These health care advances can only occur with the systematic recording, collection, validation and analysis of data.

This is the mission of military medical research. It is these medical advances that hold the greatest potential for decreasing the morbidity and mortality associated with combat injuries. For this reason, combat-relevant research may be the most impactful medical mission currently being conducted in theater. +

NAMRU-3 Scientists lecture at Cairo University

Story and photo from
NAMRU-3 Public Affairs

For the fall semester in the Chemistry Department at Cairo University, two U.S. Naval Medical Research Unit No. 3 (NAMRU-3) staff members served as guest

lecturers for an undergraduate biotechnology/biomolecular chemistry course in Biosafety and Genetically Modified Organisms. Dr. Hanan El Mohammady and Dr. Samar Tadros worked with the Cairo University Biotechnology Program Head, Dr. Kohar Garo, Professor of Zoology and a former research collaborator with NAMRU-3, and the program coordinator, Professor Dr. Ahmed Helmy Elwahy, to develop the course curriculum. The topics included general laboratory safety, introduction to biosafety, personnel protective equipment, good laboratory practices, containment, spills, disinfection-sterilization and waste management, ergonomics, biorisk assessment, and genetically modified organisms (GMO). This course was a first for Egyptian undergraduate biotechnology/biomolecular chemistry majors.

Cairo University student Aya Farghally commented on her reasons for studying biotechnology.

"Choosing biotechnology as a career was very challenging because of the lack of awareness we have in Egypt about it," Farghally said. "Attending the Biosafety and GMO course this year was really very useful to me. I learned the basics of laborato-



Dr. Samar Tadros (far right) with Cairo University students at the NAMRU-3 lab. Photo by Rafi George

ry safety and how to control hazards inside the lab environment, which will prevent it from harming the outer environment. I also learned professional lab practices and ergonomics that could really help me a lot in my career as a scientist."

The class of 41 fourth-year students also had the opportunity to visit NAMRU-3's Bacterial and Parasitic Disease Research Program laboratories in December to learn more about the biosafety requirements in the laboratories and how to make the biosafety elements the first protection barrier against infection.

El Mohammady, head of the Bacterial and Parasitic

Disease Lab at NAMRU-3, said, "NAMRU-3 does a lot of training inside and outside Egypt as part of our mission, but this course was a new experience for me. I am pleased to share in this type of activity, especially getting to interact with the undergraduates. The students were also introduced to NAMRU-3, learning about its mission in the region and the standards under which it accomplishes that mission."

After passing the final exam prepared by El Mohammady and Tadros, the students will receive special certificates from Cairo University for completion of the NAMRU-3 segment of the curriculum.

Tadros, the NAMRU-3 safety officer, said, "Before the course, students had some misconceptions about NAMRU-3, but after taking the course and visiting our lab, they better understand what NAMRU-3 is doing for Egypt. They also appreciated being welcomed by Capt. Oyoyo [NAMRU-3 commanding officer] and started asking about possible job opportunities when they graduate."

Discussions are ongoing for the next step to develop the biosafety curriculum at Cairo University with plans to include further lectures and regularly recurring workshops with input from NAMRU-3 staff. +

Teddy Roosevelt a

By **André B. Sobocinski** | U.S. Navy Bureau of Medicine and Surgery Historian

Today's U.S. Navy espouses a "culture of fitness," and "physical readiness," but this was not always so. In the early 1900s, many including the president himself, Theodore Roosevelt, were appalled by the lack of physical conditioning in the Navy.

In his autobiography, Roosevelt wrote, "Many of the older officers were so unfit physically that their condition would have excited laughter, had it not been so serious to think that they belonged to the military arm of the Government." (1) Not being one to sit aimlessly aside on any issue of importance, Roosevelt charged forth with an attempt to change the desk-bound culture of the military. As a result he helped establish the forerunner of today's Physical Readiness Training Program (PRT).

Without question, Roosevelt was a fitness fanatic who more than compensated in adulthood for the infirmities that plagued his childhood. He enjoyed boxing, climbing, hiking, horseback riding, polo, rowing, tennis, swimming, weightlifting and even jiu-jitsu. All of which he did to the extreme. He brought exercise equipment to the White House and even had a boxing ring set up where he would spar with professional prize-fighters, including the legendary John L. Sullivan. (2) Whether it was rigorous exercise or outdoor life or political reform, Roosevelt seemed to direct the full force of his spirit into living the "strenuous life." As part of this philosophy he believed nothing was gained without hard work; and maintaining one's moral and physical character was almost a patriotic duty. (3)

On Nov. 17, 1908, Roosevelt suggested to Secretary of the Navy Truman Newberry that the Navy needed its own physical fitness test. (4,5) Under Roosevelt's omnipresent watch, Secretary



Navy Medical School students immersed in morning exercises in 1909. (Photo courtesy of the Library of Congress).

Newberry and Rear Adm. Presley M. Rixey, chief of Bureau of Medicine and Surgery, developed new annual endurance test worthy of the president (and arguably molded in his image.)

The new test gave officers the choice of completing one of three options: a fifty mile walk within three consecu-

tive days and in total of twenty hours; a ride on horseback at a distance of ninety miles within three consecutive days; or a ride on a bicycle at a distance of 100 miles within three consecutive days. All personnel taking the test would be examined by a Navy Medical Board to determine whether the test may be

and the Navy's PRT



taken without risk and report again to the board upon completion. (6) Officers would not be promoted unless they passed the exam and their medical record would now include a fitness report.

The Roosevelt endorsed physical fitness directive was issued as Navy General Order No. 6 on Jan. 4, 1909. As one

newspaper put it, "This [order] will give the corpulent sea fighters who have long occupied swivel chairs an opportunity to get into fit condition for the ordeal." (7)

Almost immediately the directive was subject to criticism. Navy Surgeon James Gatewood complained that the endurance test would leave participants

in a "depressed physical state" and therefore have a negative impact on physical readiness. He believed the Navy would benefit more if it maintained golf courses, bowling alleys and tennis courts at its installations. (8) Other Navy medical personnel proposed building gymnasiums where both officers and enlisted

Without question, Roosevelt was a fitness fanatic who more than compensated in adulthood for the infirmities that plagued his childhood.

would have access to exercise “appliances.” (9)

The authors of Navy General Order No. 6 could do little to ensure its survival. Roosevelt would leave office in March 1909. And despite being offered a third term as Surgeon General, Rear Adm. Rixey retired on Feb. 4, 1910.

His successor Rear Adm. Charles Stokes reported to the new SECNAV George von Meyer on Aug. 15, 1910 that “After 18 months it has been plainly demonstrated that the objects sought for [with General Order No. 6] have not been attained. On the other hand much harm has been done to the service through the enforcement of this order.” (10) Stokes called for the abolishment of the physical test and proposed shorter walks (25 miles in two days) and an “exercise period for physical betterment” following the tenants outlined in the book *Mit System* (1904) by Danish gymnastics educator Jørgen Peter Müller. (11)

The Navy published a revised General Order on Dec. 14, 1910 (Navy General Order 94) that now applied to both the Navy and Marine Corps. Every quarter officers would be required to walk 25 miles in two consecutive days (five hours allowed for each day). (12) The fitness tests were further modified by General Order No 127 on Oct. 14, 1911, which reduced the distance to ten miles within the time limit of four hours every month. (13,14) Ultimately, Roosevelt was not pleased with the adulteration of his program. In his autobiography, he insisted that a walk completed in one day was of no value in demonstrating endurance; only an exam that continued on succeeding days would prove

an individual’s physical condition.

The physical fitness examination was ultimately suspended on April 6, 1917 on account of World War I by Navy General Order 284. Remarkably, the PRT experiment in the Navy would be laid to rest for almost fifty years before being rekindled. (15)

Endnotes

1. Roosevelt, Theodore. *An Autobiography*. New York: Macmillan Company, 1914. p48.

2. Lansford, Tom. *Teddy Roosevelt in Perspective*. New York: Nova Science Publishers, 2005.

3. Term came from a speech given in 1899 in which Roosevelt exclaimed, “Above all, let us shrink from no strife, moral or physical, within or without the nation, provided we are certain that the strife is justified, for it is only through strife, through hard and dangerous endeavor, that we shall ultimately win the goal of true national greatness.”

4. Roosevelt, Theodore to Truman Newberry. Nov. 17, 1908. M & S No. 116257. BUMED Correspondence Files. RG 52. National Archives.

5. Dr. Rixey echoed the president’s beliefs that physical fitness was tied to readiness. On 20 November, Rixey wrote to the president expressing his concerns over the officers deemed unhealthy and likely to request a waiver from the exam. “It is the opinion of the Bureau [of Medicine] that many such officers will suffer breakdown upon the advent of war and fail to render any adequate return to the Government which has, for many years perhaps, educated them for this very crisis. It should be remembered, moreover, that those physically incompetent take the place of others, with equal opportunities, would

render most efficient service.” Rixey, Presley. Memorandum for the Secretary of the Navy Regarding the President’s Suggestion as to the advisability of having a physical test for officers of the Navy. Nov., 20 1908. 116257. BUMED Correspondence Files. RG 52. National Archives.

6. Navy Department General Order





Theodore Roosevelt on horseback jumping over a split rail fence in 1902. Roosevelt was not one to sit idly by.

No. 6, Jan. 6, 1909.

7. "Test for Naval Officers." *The Daily News*. Jan. 20 1909. Frederick, Md.

8. *Annual Report of the Surgeon-General, U.S. Navy*. Washington, D.C.: GPO, 1910, p36.

9. *Ibid*, pg 37.

10. Stokes, Charles to SECNAV Meyer.

15 August 1910. 120900. BUMED Correspondence Files. RG 52. National Archives

11. In his book, Müller identified 18 exercises that emphasized breathing, stretching and including push-ups and sit-ups.

12. Navy Department General Order

No. 94, Dec. 14 1910

13. "Historical Background on Physical Fitness in the Marine Corps." USMC Historical Collections—Navy Department Library Reference Collections.

14. Navy Department General Order 127 dated Oct. 14 1911.

15. Marine Corps Reference. +

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